

BELL TELEPHONE LABORATORIES, INCORPORATED

JAN 1 1981

6-162

COMMON SYSTEMS
FOR USE WITH NO. 3 ESS
ARRANGED WITH 2-WIRE FEATURES
TIMING COUNTER, INTERRUPT, ADDRESS AND DATA MATCHER, AND IO TESTS
(CONTI)

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ISSUE 4
02/05/81

AT&TCO
SPCS

PR-1C931-50
162 PAGES

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SECTION DICTIONARY

NUMBER	NAME	MAXIMUM	ORIGIN	TYP	ADDRESS-MODIFICATION
01	CTIMERS	0000455		C	
02	CINTRUPT	0000400		C	
03	CADMTCH	0000466		C	
04	CDTMTCH	0000013		C	
05	CIO	0000020		C	
06	CPATCH	0000000		C	
07	CPATCH1	0000000		C	
08	CPATCH2	0000000		C	
09	CPATCH3	0000000		C	
0A	CPATCH7	0000000		C	
0B	TFAPCH2	0000000		C	
0C	TPATCH	0000000		C	

TIMING COUNTER, INTERRUPT, ADDRESS AND DATA MATCHER, AND IO TESTS

PR-1C931-50

23:13:53 02/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI

ISSUE 04

PAGE

A1



VERSION W77D OF SWAP; VERSION

OF EPL

23:13:53 2/05/81 ****

CDGNTI

W77D

0015031
0015031
0015031

```

01 DBNAM NO33E3I3.OFF.DATABASE
02 RELNAM NO3ESS
03 GETLIB LIBRARY, MEMBER=MOPTBL
04 GETLIB LIBRARY, MEMBER=SYSMAC
05 GETLIB LIBRARY, MEMBER=SYSSYM
06 GETLIB LIBRARY, MEMBER=PATCHZ
07 FIRSTOPTSS
08 VERSION SACC, FIELD, ESSZE
09 PATCHINIT
10 NO33E3I3.OFF.OPMS(0) DECK
11 DSQUAL NO33E3I3
12 LISTING N, CRUNCH=Y, SYSOUT=N
13 #####
14 ##
15 ## UNIX ID = NO3PAG
16 ##
17 #####
18 #####
19 ##
20 ##### pid date time rel
21 ##
22 ##### cdgnti 1/24/81 16:52:57 7.1.1.1
23 ##
24 #####
25 VERSIONS (SACC, INTERDATA), (FACTORY, FIELD)

```

29 ## The following is a list of the valid csects for program CDGNTI

0015031
0015506
0016206
0017147
0020173

```

31 CTIMERS CSECT
32 CINTRUPT CSECT
33 CADMTCH CSECT
34 CDTMTCH CSECT
35 CIO CSECT

```

38 ## The following csects are necessary for patching

0111432
0112562
0114107
0115073
0121236

```

40 CPATCH CSECT
41 CPATCH1 CSECT
42 CPATCH2 CSECT
43 CPATCH3 CSECT
44 CPATCH7 CSECT

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 1

001

23:13:53 2/05/81 ***

CDGNTI W77D

0116774

01 TFAPCH2 CSECT

0600000

03 TPATCH CSECT

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 2

23:13:53 2/05/81 ****

CDGNTI W77D

0600000

```

01 # THIS DATA SET EDITED FOR UNIX. ON 05/24/78
02 GETLIB MEMBER=DGNMAC
03 BEGIN DIAG DGN1I,3ACC
-001- 04 CDGNM EXTERN NMICRO
-001- 05 CDGNM EXTERN NRETRN
-001- 06 CDGNM EXTERN NZRETRN
-001- 07 CDGNM EXTERN NSTRT
-001- 08 CDGNM EXTERN NSTOP
-001- 09 CDGNM EXTERN NDISABA
-001- 10 CDGNM EXTERN NDISABB
-001- 11 CDGNM EXTERN NSTRTCLK
-001- 12 CDGNM EXTERN NSTPCLK
-001- 13 CDGNM EXTERN NTGCLK
-001- 14 CDGNM EXTERN NRESCLK
-001- 15 CDGNM EXTERN NZERO_ER
-001- 16 CDGNM EXTERN NPROS
-001- 17 CDGNM EXTERN NTESTSEG
-001- 18 CDGNM EXTERN NFAILTST
-001- 19 CDGNM EXTERN NTTY
-001- 20 CDGNM EXTERN NMASK
-001- 21 CDGNM EXTERN NFASTST
-001- 22 CDGNM EXTERN NSEND
-001- 23 CDGNM EXTERN NZSEND
-001- 24 CDGNM EXTERN NADD_OFF
-001- 25 CDGNM EXTERN NADMIC
-001- 26 CDGNM EXTERN NLDHIR
-001- 27 CDGNM EXTERN NEXECUTE
-001- 28 CDGNM EXTERN NCOMPARE
-001- 29 CDGNM EXTERN NFRZ
-001- 30 CDGNM EXTERN NBEGIN
-001- 31 CDGNM EXTERN NLP_END
-001- 32 CDGNM EXTERN NSKIP
-001- 33 CDGNM EXTERN NABT
-001- 34 CDGNM EXTERN NRDMICRO
-001- 35 CDGNM EXTERN NCLRMS
-001- 36 CDGNM EXTERN NNO3CD
-001- 37 CDGNM EXTERN NTNTEST
-001- 38 CDGNM EXTERN NZERP
-001- 39 CDGNM EXTERN NFLBITS
-001- 40 CDGNM DIRECT INTRPNO3
-001- 41 CDGNM EXTERN MBGN
-001- 42 CDGNOF EXTERN PASSOFF
-001- 43 CDGNOF EXTERN FAILOFF
-001- 44 CDGNM EXTERN SLDCHBF
-001- 45 CDGNM EXTERN SLDHRLF
-001- 46 CDGNM EXTERN SHCHF
-001- 47 CDGNM EXTERN NRTNBLH
-001- 48 CDGNM EXTERN NWDTST

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 3

23:13:53 2/05/81 ****

CDGNTI W77D

-001- 01 # THIS DIAGNOSTIC PROGRAM IS ALL OR PARTIALLY WRITTEN IN A MACRO
-001- 02 # LANGUAGE WHICH PRODUCES TABLES WHICH ARE INTERPRETED BY THE
-001- 03 # DIAGNOSTIC MONITOR PROGRAM. FOR INFORMATION REGARDING THE
-001- 04 # STRUCTURE OF THE TABLES, SEE THE SECTION OF PROGRAM CDGNM (PR-1C910-01)
-001- 05 # ENTITLED "DIAGNOSTIC TABLE INTERPRETER". FOR A GENERAL DESCRIPTION
-001- 06 # OF THE DIAGNOSTIC PHILOSOPHY AND THE DETAILED REPAIR PROCEDURE,
-001- 07 # SEE THE TROUBLE LOCATION MANUAL (TLN-1C900) SECTION B.

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, I/O TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 4

23:13:53 2/05/81 ****

CDGNTI W77D

01 # LINKAGES TO OFF-LINE CODE
02 CDGNOF EXTERN TIMRGT
03 CDGNOF EXTERN TIMPRE
04 CDGNOF EXTERN TI125

10 # LINKAGE TO SUBROUTINE
11 CSYSUB EXTERN INSYNC

IOPKS

17 # MACRO USED FOR TLM GENERATION.
18 MACRO
19 IOPKS
20 PMC SAVE,ON
21
22 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
23 \$(IOS00)
24 \$(IOD00)
25
26 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
27 \$(IOS01)
28 \$(IOD01)
29
30 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
31 \$(IOS02)
32 \$(IOD02)
33 PMC RESTORE
34 MEND

36 IOPKS OPRSH 1

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 5

TEST 70

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # *****
-001- 04 # ** CU DIAGNOSTIC TEST NO. 70, PROGRAM_TIMER-TIMING_COUNTERS **
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0015031

-001- 10 CTIMERS CSECT

-001- 13 # THIS TEST USES OFF-LINE CODE AT CSECT OTIMERS

```

0015031 01 000000 004345 002000 CDGNM -001- 17 VFD 1,0 2,0 2,1 2,0 3,3 6,NBGM
0015032 01 000001 002000 016106 EXTERN -001- 18 ADDR OTIMERS,XTIMERS

```

```

22 # SEGMENT 1
23 # THE TI IS STOPPED WITH THE "SBTC" MISCELLANEOUS CROSSPOINT
24 # WHICH STOPS THE TIMER FOR 256 MICROSECONDS. THREE CONSTANTS
25 # ARE GATED INTO AND BACK OUT OF THE TI, ALL ZEROS, ALL ONES,
26 # AND ALL ZEROS. THIS SEGMENT IS RUN IN THE OFF-LINE
27 # PROCESSOR AND A FLAG IS LEFT IN THE MAINTENANCE CHANNEL
28 # BUFFER FOR THE ON-LINE TO INTERROGATE WHICH IS 0 FOR SUCCESS
29 # AND 1 FOR FAILURE

31 # SEGMENT 2
32 # THE FOUR BIT PRESCALER IS ZEROED BY THE "DRXTI" CROSSPOINT
33 # AND THEN INCREMENTED 16 TIMES. BIT 0 OF THE TI SHOULD BE
34 # SET ON THE SIXTEENTH COUNT. THIS SEGMENT IS RUN BY THE
35 # OFF-LINE PROCESSOR IN THE MANNER OF SEGMENT 1.

37 # SEGMENT 3
38 # THE COMBINATION OF THE TI=B(100) AND THE PRESCALER=B(0001)
39 # CREATES A 1.25 MS SIGNAL WHICH SHOULD CLEAR BITS (0-3) OF THE
40 # TI, SET BIT 4 AND CLEAR THE PRESCALER. THE TI IS SET TO
41 # B(100), THE PRESCALER IS ZEROED AND THEN INCREMENTED ONE
42 # TIME. THE TI IS EXAMINED AFTER THE PRESCALER IS
43 # INCREMENTED. TO PROVE THAT THE PRESCALER IS ZEROED, THE
44 # PRESCALER TEST OF SEGMENT 2 IS RUN AGAIN. THIS SEGMENT
45 # IS RUN IN THE OFF-LINE PROCESSOR

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 6

TEST 70

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

W77D

01 # SEGMENT 4
02 # THE TI IS TESTED TO INSURE THAT IT COUNTS PROPERLY. SIXTEEN
03 # CONSTANTS ARE USED TO SHOW THAT EACH BIT CAN BE TOGGLED
04 # BY THE NEXT LOWEST BIT. NOTE THAT THE TIMER HAS SEVERAL
05 # NONLINIAR POINTS CORRESPONDING TO 1.25 MS. AND 25 MS.

07 # SEGMENT 5
08 # THE MAINTENANCE CHANNEL ORDER WHICH CLEARS THE PROGRAM
09 # TIMER (HIGH 8 BITS OF THE TI) IS TESTED.
10 # THE "ZPT" AND "BRXPT" CROSSPOINTS ARE ALSO TESTED.

12 # SEGMENT 6
13 # THE "SBTC" CROSSPOINT SHOULD SET THE BTC BIT IN THE SS
14 # WHICH STOPS THE TI AND STARTS A 256 MICROSECOND BACKUP
15 # TIMER. WHEN THE BACKUP TIMER TIMES OUT, THE BTC BIT
16 # SHOULD BE CLEARED AND THE TI SHOULD START COUNTING.

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 7

TEST 70 SEGMENT 1

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # *   TEST 70   SEGMENT 1
-001- 04 # *
-001- 05 # *****

```

0015034 01 000003 000100 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(1) 6,NTESTSEG

```

11 # THE TI IS STOPPED WITH THE "SBTC" MISCELLANEOUS CROSSPOINT
12 # WHICH STOPS THE TIMER FOR 256 MICROSECONDS. THREE CONSTANTS
13 # ARE GATED INTO AND BACK OUT OF THE TI, ALL ZEROS, ALL ONES,
14 # AND ALL ZEROS. THIS SEGMENT IS RUN IN THE OFF-LINE
15 # PROCESSOR AND A FLAG IS LEFT IN THE MAINTENANCE CHANNEL
16 # BUFFER FOR THE ON-LINE TO INTERROGATE WHICH IS 0 FOR SUCCESS
17 # AND 1 FOR FAILURE

```

```

-001- 19 # STOP OFF
-001- 20 # SET STOP BIT IN OFF-LINE CU.
0015035 01 000004 017627 ----- CDGNM -001- 21 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

```

```

-001- 23 # CALLPROS
-001- 24 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0015036 01 000005 000004 ----- CDGNM -001- 25 VFD 1,0 2,0 6,0 1,0 6,NPROS

```

```

-001- 27 # RTN_BLM
-001- 28 # TURN OFF AUTOMATIC RETURNS TO BLM EVERY 20 TABLE ENTRIES.
0015037 01 000006 000144 ----- CDGNM -001- 29 VFD 1,0 2,0 6,0 1,1 6,NRTNBLM

```

```

-001- 31 # ADD OFF
-001- 32 # START OFF-LINE PROCESSOR AT ADDRESS TIMRG.
0015040 01 000007 040022 000000 CDGNM -001- 33 VFD 1,0 2,2 7,0 6,NADD_OFF
0015041 01 000010 000000 016106 CDGNMF -001- 34 ADDR TIMRG

```

```

-001- 36 # TIMETST
-001- 37 # ALLOW OFF-LINE TO RUN FOR 50 MICROSECONDS WHILE ON-LINE WAITS.
0015043 01 000012 020003 ----- CDGNM -001- 38 VFD 1,0 2,1 7,0 6,NTMTEST
0015044 01 000013 000024 ----- -001- 39 VFD 16,LPMUM

```

```

-001- 41 # RETRN
-001- 42 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015045 01 000014 007710 ----- CDGNM -001- 43 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

```

```

-001- 45 # COMPARE
-001- 46 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(00000000).
-001- 47 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015046 01 000015 050014 ----- CDGNM -001- 48 VFD 1,LPMUM 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0015047 01 000016 000000 000000 -001- 49 ADDR 0(00000000)

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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TEST 70 SEGMENT 1

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

				-001- 02 #	FAILTST
				-001- 03 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLGTTI.
				-001- 04 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015051	01	000020	020017	-----	CDGNM
				-001- 05	VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0015052	01	000021	000001	-----	
				-001- 06	VFD 16,FLGTTI

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 9

TEST 70 SEGMENT 2

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNM W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 70 SEGMENT 2
-001- 04 # *
-001- 05 # *****

0015053 01 000022 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

11 # THE FOUR BIT PRESCALER IS ZEROED BY THE "BRXTI" CROSSPOINT
12 # AND THEN INCREMENTED 16 TIMES. BIT 0 OF THE TI SHOULD BE
13 # SET ON THE SIXTEENTH COUNT. THIS SEGMENT IS RUN BY THE
14 # OFF-LINE PROCESSOR IN THE MANNER OF SEGMENT 1.

-001- 16 # STOP OFF
-001- 17 # SET STOP BIT IN OFF-LINE CU.
0015054 01 000023 017627 ----- CDGNM -001- 18 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 20 # CALLPROS
-001- 21 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0015055 01 000024 000004 ----- CDGNM -001- 22 VFD 1,0 2,0 6,0 1,0 6,NPROS

-001- 24 # ADD OFF
-001- 25 # START OFF-LINE PROCESSOR AT ADDRESS TIMPRE.
0015056 01 000025 040022 000000 CDGNM -001- 26 VFD 1,0 2,2 7,0 6,NADD_OFF
0015057 01 000026 000000 016145 CDGNM -001- 27 ADDR TIMPRE

-001- 29 # TIMETST
-001- 30 # ALLOW OFF-LINE TO RUN FOR 350 MICROSECONDS WHILE ON-LINE WAITS.
0015061 01 000030 020003 ----- CDGNM -001- 31 VFD 1,0 2,1 7,0 6,NTMTST
0015062 01 000031 000214 ----- -001- 32 VFD 16,LPNUM

-001- 34 # RETRN
-001- 35 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015063 01 000032 007710 ----- CDGNM -001- 36 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 38 # COMPARE
-001- 39 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(00000000).
-001- 40 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015064 01 000033 050014 ----- CDGNM -001- 41 VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0015065 01 000034 000000 000000 -001- 42 ADDR 0(00000000)

-001- 44 # FAULTST
-001- 45 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLPRETI.
-001- 46 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015067 01 000036 020017 ----- CDGNM -001- 47 VFD 1,0 2,1 5,0 2,0 6,NFAULTST
0015070 01 000037 000002 ----- -001- 48 VFD 16,FLPRETI

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNM ISSUE 04 PAGE 10

TEST 70 SEGMENT 3

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 70 SEGMENT 3
-001- 04 # *
-001- 05 # *****

0015071 01 000040 000300 ----- CDGNN -001- 08 VFD 1,0 2,0 2,0 5,D(3) 6,NTESTSEG

11 # THE COMBINATION OF THE TI=B(100) AND THE PRESCALER=B(0001)
12 # CREATES A 1.25 NS SIGNAL WHICH SHOULD CLEAR BITS (0-3) OF THE
13 # TI, SET BIT 4 AND CLEAR THE PRESCALER. THE TI IS SET TO
14 # B(100), THE PRESCALER IS ZEROED AND THEN INCREMENTED ONE
15 # TIME. THE TI IS EXAMINED AFTER THE PRESCALER IS
16 # INCREMENTED. TO PROVE THAT THE PRESCALER IS ZEROED, THE
17 # PRESCALER TEST OF SEGMENT 2 IS RUN AGAIN. THIS SEGMENT
18 # IS RUN IN THE OFF-LINE PROCESSOR.

-001- 20 # STOP_OFF
-001- 21 # SET STOP BIT IN OFF-LINE CU.
0015072 01 000041 017627 ----- CDGNN -001- 22 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

-001- 24 # CALLPROS
-001- 25 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0015073 01 000042 000004 ----- CDGNN -001- 26 VFD 1,0 2,0 6,0 1,0 6,NPROS

-001- 28 # ADD_OFF
-001- 29 # START OFF-LINE PROCESSOR AT ADDRESS TI125.
0015074 01 000043 040022 000000 CDGNN -001- 30 VFD 1,0 2,2 7,0 6,NADD_OFF
0015075 01 000044 000000 016171 CDGNN -001- 31 ADDR TI125

-001- 33 # TIMETST
-001- 34 # ALLOW OFF-LINE TO RUN FOR 1000 MICROSECONDS WHILE ON-LINE WAITS.
0015077 01 000046 020003 ----- CDGNN -001- 35 VFD 1,0 2,1 7,0 6,NMTST
0015100 01 000047 000620 ----- -001- 36 VFD 16,LPNUM

-001- 38 # RETRN
-001- 39 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015101 01 000050 007710 ----- CDGNN -001- 40 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 42 # COMPARE
-001- 43 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0000000).
-001- 44 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015102 01 000051 050014 ----- CDGNN -001- 45 VFD 1,LPIIDX 2,2 1,1,SUCCESS 5,0 6,NCOMPARE
0015103 01 000052 000000 000000 -001- 46 ADDR 0(0000000)

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 70 SEGMENT 3

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

W770

			-001- 01 #	FAILTST	
			-001- 02 #	FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLT1125.	
			-001- 03 #	DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHD.	
0015105	01	000054	020017	-----	CDGNM
0015106	01	000055	000003	-----	
			-001- 04	VFD	1,0 2,1 5,0 2,0 6,NFAILTST
			-001- 05	VFD	16,FLT1125
			-001- 07 #	STOP_OFF	
			-001- 08 #	SET STOP BIT IN OFF-LINE CU.	
0015107	01	000056	017627	-----	CDGNM
			-001- 09	VFD	1,0 2,0 7,B(11111110) 6,NSTOP

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 12

TEST 70 SEGMENT 4

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 70 SEGMENT 4
-001- 04 # *
-001- 05 # *****

0015110 01 000057 000400 ----- CDGNN -001- 08 VFD 1,0 2,0 2,0 5,D(4) 6,NTESTSEG

11 # THE TI IS TESTED TO INSURE THAT IT COUNTS PROPERLY. SIXTEEN
12 # CONSTANTS ARE USED TO SHOW THAT EACH BIT CAN BE TOGGLED
13 # BY THE NEXT LOWEST BIT. NOTE THAT THE TIMER HAS SEVERAL
14 # NONLINIAR POINTS CORRESPONDING TO 1.25 MS. AND 25 MS.

-001- 16 # LP_BEGIN
-001- 17 # BEGIN 16 LOOPS.
0015111 01 000060 002001 ----- CDGNN -001- 18 TIINCLP VFD 1,0 2,0 7,D(16) 6,NBEGIN

-001- 20 # CALLPROS
-001- 21 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0015112 01 000061 000004 ----- CDGNN -001- 22 VFD 1,0 2,0 6,D 1,0 6,NPROS

-001- 24 # M03_CODE
-001- 25 # PROCESS 3ACC CODED ROUTINE AT ADDRESS INSYNCL.
0015113 01 000062 040043 000000 CDGNN -001- 26 VFD 1,0 2,2 7,0 6,MN03CD
0015114 01 000063 000000 015246 0015246 -001- 27 ADDR INSYNCL

0015116 29 # ALLOW 2.5 MS BEFORE NEXT TIMED
# INTERRUPT ASSUMING NO INTERRUPT MORE
# FREQUENT THAN 5 MS IS EQUIPPED.

0015116 32 TBLRTN1
-001- 33 # MICRO
-001- 34 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 35 # MISCELLANEOUS CROSSPOINT SBTCK
0015116 01 000065 020005 ----- CDGNN -001- 36 VFD 1,0 2,1 7,0 6,MHICRO
0015117 01 000066 025471 ----- -001- 37 VFD 16,SBTCK

-001- 39 # SEND
-001- 40 # SEND CONSTANTS TO OFF-LINE DUPLICATE B REGISTERS.
-001- 41 # PARITY IS NORMAL.
0015120 01 000067 156706 ----- CDGNN -001- 42 VFD 1,1 2,2 7,B(1110111) 6,NSEND

-001- 43 ADDR 0(0000001) # LOOP 1
0015121 01 000070 000000 000001 -001- 44 ADDR 0(0000003) # LOOP 2
0015123 01 000072 000000 000003 -001- 45 ADDR 0(0000007) # LOOP 3
0015125 01 000074 000000 000007 -001- 46 ADDR 0(0000017) # LOOP 4
0015127 01 000076 000000 000017 -001- 47 ADDR 0(0000037) # LOOP 5
0015131 01 000100 000000 000037 -001- 48 ADDR 0(0000077) # LOOP 6
0015133 01 000102 000000 000077 -001- 49 ADDR 0(0000177) # LOOP 7
0015135 01 000104 000000 000177

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 13

TEST 70 SEGMENT 4

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

```

0015137 01 000106 000000 000237 -001- 01 ADDR 0(0000237) # LOOP 8
0015141 01 000110 000000 000637 -001- 02 ADDR 0(0000637) # LOOP 9
0015143 01 000112 000000 001637 -001- 03 ADDR 0(0001637) # LOOP 10
0015145 01 000114 000000 003637 -001- 04 ADDR 0(0003637) # LOOP 11
0015147 01 000116 000000 007637 -001- 05 ADDR 0(0007637) # LOOP 12
0015151 01 000120 000000 017637 -001- 06 ADDR 0(0017637) # LOOP 13
0015153 01 000122 000000 037637 -001- 07 ADDR 0(0037637) # LOOP 14
0015155 01 000124 000000 077637 -001- 08 ADDR 0(0077637) # LOOP 15
0015157 01 000126 000000 177637 -001- 09 ADDR 0(0177637) # LOOP 16

-001- 11 # MICRO
-001- 12 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 13 # MISCELLANEOUS CROSSPOINT BRXTIX
0015161 01 000130 020005 ----- CDGNTI VFD 1,0 2,1 7,0 6,NMICRO
0015162 01 000131 154066 ----- VFD 16,BRXTIX

-001- 17 # MICRO
-001- 18 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 19 # MISCELLANEOUS CROSSPOINT INCTCX
0015163 01 000132 020005 ----- CDGNTI VFD 1,0 2,1 7,0 6,NMICRO
0015164 01 000133 154071 ----- VFD 16,INCTCX

-001- 23 # MICRO
-001- 24 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 25 # MISCELLANEOUS CROSSPOINT INCPRX
0015165 01 000134 020005 ----- CDGNTI VFD 1,0 2,1 7,0 6,NMICRO
0015166 01 000135 134071 ----- VFD 16,INCPRX

-001- 29 # MICRO
-001- 30 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 31 # TO FIELD = MCHBXT FROM FIELD = TIXF
0015167 01 000136 020005 ----- CDGNTI VFD 1,0 2,1 7,0 6,NMICRO
0015170 01 000137 114623 ----- VFD 8,MCHBXT 6,TIXF

-001- 35 # RETRN
-001- 36 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015171 01 000140 007710 ----- CDGNTI VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 39 # COMPARE
-001- 40 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO CONSTANTS.
-001- 41 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015172 01 000141 150014 ----- CDGNTI VFD 1,1,PRNT 2,2 1,1,SUCCESS 5,0 6,NCOMPARE
0015173 01 000142 000000 000002 -001- 42 ADDR 0(0000002) # LOOP 1
0015175 01 000144 000000 000010 -001- 43 ADDR 0(0000010) # LOOP 2
0015177 01 000146 000000 000010 -001- 44 ADDR 0(0000010) # LOOP 3
0015201 01 000150 000000 000020 -001- 45 ADDR 0(0000020) # LOOP 4
0015203 01 000152 000000 000040 -001- 46 ADDR 0(0000040) # LOOP 5
0015205 01 000154 000000 000100 -001- 47 ADDR 0(0000100) # LOOP 6
0015207 01 000156 000000 000200 -001- 48 ADDR 0(0000200) # LOOP 7

```

TIMING_COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 14

TEST 70 SEGMENT 4

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CGNTI W770

```

0015211 01 000160 000000 000400 -001- 01 ADDR 0(0000400) # LOOP 8
0015213 01 000162 000000 001000 -001- 02 ADDR 0(0001000) # LOOP 9
0015215 01 000164 000000 002000 -001- 03 ADDR 0(0002000) # LOOP 10
0015217 01 000166 000000 004000 -001- 04 ADDR 0(0004000) # LOOP 11
0015221 01 000170 000000 010000 -001- 05 ADDR 0(0010000) # LOOP 12
0015223 01 000172 000000 020000 -001- 06 ADDR 0(0020000) # LOOP 13
0015225 01 000174 000000 040000 -001- 07 ADDR 0(0040000) # LOOP 14
0015227 01 000176 000000 100000 -001- 08 ADDR 0(0100000) # LOOP 15
0015231 01 000200 000000 000000 -001- 09 ADDR 0(0000000) # LOOP 16

-001- 11 # FAILTST
-001- 12 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLINCTI.
-001- 13 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015233 01 000202 020017 ----- CGNM -001- 14 VFD 1,0 2,1 5,0 2,0 6,NFAILTST.
0015234 01 000203 000004 ----- -001- 15 VFD 16,FLINCTI

-001- 17 # NO3 CODE
-001- 18 # PROCESS 3ACC CODED ROUTINE AT ADDRESS CLRBIN1.
0015235 01 000204 040043 000000 CGNM -001- 19 VFD 1,0 2,2 7,0 6,NN03CD
0015236 01 000205 000000 015257 0015257 -001- 20 ADDR CLRBIN1

0015240
-001- 22 TBLRTN2
-001- 23 # LP_END
-001- 24 # TERMINATE LOOP.
0015240 01 000207 040002 000000 CGNM -001- 25 VFD 1,0 2,2 7,0 6,NLP_END
0015241 01 000210 000000 015111 0015111 -001- 26 ADDR LPSTART

-001- 28 # NO3 CODE
-001- 29 # PROCESS 3ACC CODED ROUTINE AT ADDRESS G0SEGS.
0015243 01 000212 040043 000000 CGNM -001- 30 VFD 1,0 2,2 7,0 6,NN03CD
0015244 01 000213 000000 015266 0015266 -001- 31 ADDR G0SEGS

```

38 # 3ACC CODE FOR SEGMENT 4

```

0015246
41 INSYNC # ALLOW 2.5 MS. BEFORE NEXT TIMED INTERRUPT
0015246 01 000215 103401 000020 43 LI R0,E(4)
0015250 44 CALL INSYNC
0015250 01 000217 037020 111163 CSYSUB -001- 45 BSA INSYNC
0015252 46 RTN_TBL TBLRTN1
0015252 01 000221 171400 ----- -001- 47 6A
0015253 01 000222 031000 015116 0015116 -001- 48 LAL R0,TBLRTN1,RAD
0015255 01 000224 037000 011162 CGNM -001- 49 BL INTRPN03

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, I/O TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CGNTI ISSUE 04 PAGE 15

TEST 70 SEGMENT 4

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST .

CDGNTI W77D

0015257			04 CLRBIN1	#	CLEAR ON-LINE BIN
0015257			05 ZBIN		
0015257	01	000226 113002	----- -001- 06 MIS 2		
0015260	01	000227 107322	----- -001- 07 DATA 36562		
0015261			08 RTN_TBL TBLRTN2		
0015261	01	000230 071400	----- -001- 09 GA		
0015262	01	000231 031000 015240 0015240	-001- 10 LAL RD,TBLRTN2,RAO		
0015264	01	000233 037000 011162 CDGNH	-001- 11 BL INTRPN03		

0015266			15 G0SEG5	#	GO TO SEGMENT 5
0015266			16 RTN_TBL D0SEG5		
0015266	01	000235 171400	----- -001- 17 GA		
0015267	01	000236 031000 015273	-001- 18 LAL RD,D0SEG5,RAO		
0015271	01	000240 037000 011162 CDGNH	-001- 19 BL INTRPN03		

0015273			23 D0SEG5
---------	--	--	-----------

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 16

TEST 70 SEGMENT 5

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 70 SEGMENT 5
-001- 04 # *
-001- 05 # *****

0015273 01 000242 000500 ----- CDGNTI -001- 08 VFD 1,0 2,0 2,0 5,0(5) 6,NTESTSEG

11 # THE MAINTENANCE CHANNEL ORDER WHICH CLEARS THE PROGRAM
12 # TIMER (HIGH 8 BITS OF THE TI) IS TESTED.
13 # THE "ZPT" AND "BRXPT" CROSSPOINTS ARE ALSO TESTED.

-001- 15 # CALLPROS
-001- 16 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0015274 01 000243 000004 ----- CDGNTI -001- 17 VFD 1,0 2,0 6,0 1,0 6,NPROS

0015275 19 # ALLOW 2.5 MS BEFORE NEXT TIMED
# INTERRUPT ASSUMING NO INTERRUPT MORE
# FREQUENT THAN 5 MS IS EQUIPPED.

-001- 22 # NO3_CODE
-001- 23 # PROCESS SACC CODED ROUTINE AT ADDRESS INSYNC2.
0015275 01 000244 040043 000000 CDGNTI -001- 24 VFD 1,0 2,2 7,0 6,NN03CD
0015276 01 000245 000000 015370 0015370 -001- 25 ADDR INSYNC2

0015300 27 TBLRTN3
-001- 28 # MICRO
-001- 29 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 30 # MISCELLANEOUS CROSSPOINT SBCTX
0015300 01 000247 020005 ----- CDGNTI -001- 31 VFD 1,0 2,1 7,0 6,NMICRO
0015301 01 000250 025471 ----- -001- 32 VFD 16,SBCTX

-001- 34 # SEND
-001- 35 # SEND 0(0177400) TO OFF-LINE DUPLICATE B REGISTERS.
-001- 36 # PARITY IS NORMAL.
0015302 01 000251 056706 ----- CDGNTI -001- 37 VFD 1,0 2,2 7,B(1110111) 6,NSEND
0015303 01 000252 000000 177400 -001- 38 ADDR 0(0177400)

-001- 40 # MICRO
-001- 41 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 42 # MISCELLANEOUS CROSSPOINT BRXTIX
0015305 01 000254 020005 ----- CDGNTI -001- 43 VFD 1,0 2,1 7,0 6,NMICRO
0015306 01 000255 154066 ----- -001- 44 VFD 16,BRXTIX

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 17

TCST 70 SEGMENT 5

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # ZERO_PT
-001- 02 # ZERO THE OFF-LINE PROGRAM TIMER.
-001- 03 VFD 1,0 2,0 7,0 6,NZERPT

0015307 01 000256 000030 ----- CDGNM

-001- 05 # MICRO
-001- 06 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 07 # TO FIELD = MCHBXT FROM FIELD = TIXF
-001- 08 VFD 1,0 2,1 7,0 6,NMICRO
-001- 09 VFD 8,MCHBXT 8,TIXF

0015310 01 000257 020005 ----- CDGNM
0015311 01 000260 114623 -----

-001- 11 # RETRNN
-001- 12 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
-001- 13 VFD 1,0 2,0 7,B(0111111) 6,NRETRNN

0015312 01 000261 007710 ----- CDGNM

-001- 15 # COMPARE
-001- 16 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0000000).
-001- 17 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
-001- 18 VFD 1,LINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
-001- 19 ADDR 0(0000000)

-001- 21 # FAILTST
-001- 22 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLZRPT.
-001- 23 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
-001- 24 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
-001- 25 VFD 16,FLZRPT

0015316 01 000265 020017 ----- CDGNM
0015317 01 000266 000005 -----

-001- 27 # NO3 CODE
-001- 28 # PROCESS 3ACC CODED ROUTINE AT ADDRESS CLRBN2.
-001- 29 VFD 1,0 2,2 7,0 6,NNO3CD
-001- 30 ADDR CLRBN2

0015320 01 000267 040043 000000 CDGNM
0015321 01 000270 000000 015401 0015401

0015323 32 TBLRTN4

-001- 38 # CALLPROS
-001- 39 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
-001- 40 VFD 1,0 2,0 6,0 1,0 6,NPROS

0015323 01 000272 000004 ----- CDGNM

0015324 42 # ALLOW 2.5 MS BEFORE NEXT TIMED
# INTERRUPT ASSUMING NO INTERRUPT MORE
# FREQUENT THAN 5 MS IS EQUIPPED.

-001- 45 # NO3 CODE
-001- 46 # PROCESS 3ACC CODED ROUTINE AT ADDRESS INSYNCS.
-001- 47 VFD 1,0 2,2 7,0 6,NNO3CD
-001- 48 ADDR INSYNCS

0015324 01 000273 040043 000000 CDGNM
0015325 01 000274 000000 015410 0015410

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA HATCHER, 10 TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 18

TEST 70 SEGMENT 5

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

W77D

```

0015327          01 TBLRTNS
-001- 02 # MICRO
-001- 03 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 04 # MISCELLANEOUS CROSSPOINT SBTGX
0015327 01 000276 020005 ----- CDGNM VFD 1,0 2,1 7,0 6,NMICRO
0015330 01 000277 025471 ----- CDGNM -001- 06 VFD 16,SBTGX

0015331          08 # TEST THE "ZPT" CROSSPOINT
-001- 09 # SEND
-001- 10 # SEND 0(0177400) TO OFF-LINE DUPLICATE 8 REGISTERS.
-001- 11 # PARITY IS NORMAL.
0015331 01 000300 056706 ----- CDGNM -001- 12 VFD 1,0 2,2 7,8(1110111) 6,NSEND
0015332 01 000301 000000 177400 -001- 13 ADDR 0(0177400)

-001- 15 # MICRO
-001- 16 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 17 # MISCELLANEOUS CROSSPOINT BRXTIX
0015334 01 000303 020005 ----- CDGNM -001- 18 VFD 1,0 2,1 7,0 6,NMICRO
0015335 01 000304 154066 ----- CDGNM -001- 19 VFD 16,BRXTIX

-001- 21 # MICRO
-001- 22 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 23 # MISCELLANEOUS CROSSPOINT ZPTX
0015336 01 000305 020005 ----- CDGNM -001- 24 VFD 1,0 2,1 7,0 6,NMICRO
0015337 01 000306 134350 ----- CDGNM -001- 25 VFD 16,ZPTX

-001- 27 # MICRO
-001- 28 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 29 # TO FIELD = MCHBXT FROM FIELD = TIXF
0015340 01 000307 020005 ----- CDGNM -001- 30 VFD 1,0 2,1 7,0 6,NMICRO
0015341 01 000310 114623 ----- CDGNM -001- 31 VFD 6,MCHBXT 8,TIXF

-001- 33 # RETRN
-001- 34 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015342 01 000311 007710 ----- CDGNM -001- 35 VFD 1,0 2,0 7,8(0111111) 6,NRETRN

-001- 37 # COMPARE
-001- 38 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(00000000).
-001- 39 # If COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015343 01 000312 050014 ----- CDGNM -001- 40 VFD 1,LPINX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0015344 01 000313 000000 000000 -001- 41 ADDR 0(0000000)

-001- 43 # FAILTST
-001- 44 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLZPT.
-001- 45 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015346 01 000315 020017 ----- CDGNM -001- 46 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0015347 01 000316 000006 ----- CDGNM -001- 47 VFD 16,FLZPT

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 19

TEST 70 SEGMENT 5

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W770

```

0015350                                # TEST THE "BRXPT" CROSSPOINT
                                -001- 02 # SEND
                                -001- 03 # SEND 0(0177777) TO OFF-LINE DUPLICATE B REGISTERS.
                                -001- 04 # PARITY IS NORMAL.
0015350 01 000317 056706 ----- CDGNTI
0015351 01 000320 000000 177777 -----
                                -001- 05 # VFD 1,0 2,2 7,B(1110111) 6,NSEND
                                -001- 06 # ADDR 0(0177777)

                                -001- 08 # MICRO
                                -001- 09 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 10 # MISCELLANEOUS CROSSPOINT BRXPTX
0015353 01 000322 020005 ----- CDGNTI
0015354 01 000323 164311 -----
                                -001- 11 # VFD 1,0 2,1 7,0 6,NMICRO
                                -001- 12 # VFD 16,BRXPTX

                                -001- 14 # MICRO
                                -001- 15 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
                                -001- 16 # TO FIELD = MCHBXT FROM FIELD = TIXF
0015355 01 000324 020005 ----- CDGNTI
0015356 01 000325 114623 -----
                                -001- 17 # VFD 1,0 2,1 7,0 6,NMICRO
                                -001- 18 # VFD 8,MCHBXT 8,TIXF

                                -001- 20 # RETRN
                                -001- 21 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015357 01 000326 007710 ----- CDGNTI
                                -001- 22 # VFD 1,0 2,0 7,B(0111111) 6,NRETRN

                                -001- 24 # COMPARE
                                -001- 25 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0177400).
                                -001- 26 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015360 01 000327 050014 ----- CDGNTI
0015361 01 000330 000000 177400 -----
                                -001- 27 # VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
                                -001- 28 # ADDR 0(0177400)

                                -001- 30 # FAILTST
                                -001- 31 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBRXPT.
                                -001- 32 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015363 01 000332 020017 ----- CDGNTI
0015364 01 000333 000011 -----
                                -001- 33 # VFD 1,0 2,1 5,0 2,0 6,NFAILTST
                                -001- 34 # VFD 16,FLBRXPT

                                -001- 36 # NO3 CODE
                                -001- 37 # PROCESS 3ACC CODED ROUTINE AT ADDRESS CLRBIN3.
0015365 01 000334 040043 000000 CDGNTI
0015366 01 000335 000000 015421 0015421
                                -001- 38 # VFD 1,0 2,2 7,0 6,NNO3CD
                                -001- 39 # ADDR CLRBIN3

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 20

TEST 70 SEGMENT 5

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

01 # 3ACC CODE FOR SEGMENT 5

0015370

04 INSYNC2

ALLOW 2.5 MS. BEFORE NEXT TIMED INTERRUPT

0015370 01 000337 103401 000020	06	LI	RD,E(4)
0015372	07	CALL	INSYNC
0015372 01 000341 037020 111163 CSYSUB	-001- 08	BSA	INSYNC
0015374	09	RTN_TBL	TBLRTN3
0015374 01 000343 171400 -----	-001- 10	GA	
0015375 01 000344 031000 015300 0015300	-001- 11	LAL	RD,TBLRTN3,RAD
0015377 01 000346 037000 011162 CDGNN	-001- 12	BL	INTRPN03

0015401

16 CLRBDIN2

CLEAR ON-LINE BIN

0015401	17	ZBIN	
0015401 01 000350 113002 -----	-001- 18	MIS	2
0015402 01 000351 107322 -----	-001- 19	DATA	36562
0015403	20	RTN_TBL	TBLRTN4
0015403 01 000352 071400 -----	-001- 21	GA	
0015404 01 000353 031000 015323 0015323	-001- 22	LAL	RD,TBLRTN4,RAD
0015406 01 000355 037000 011162 CDGNN	-001- 23	BL	INTRPN03

0015410

27 INSYNC3

ALLOW 2.5 MS BEFORE NEXT TIMED INTERRUPT

0015410 01 000357 103401 000020	29	LI	RD,E(4)
0015412	30	CALL	INSYNC
0015412 01 000361 037020 111163 CSYSUB	-001- 31	BSA	INSYNC
0015414	32	RTN_TBL	TBLRTN5
0015414 01 000363 171400 -----	-001- 33	GA	
0015415 01 000364 031000 015327 0015327	-001- 34	LAL	RD,TBLRTN5,RAD
0015417 01 000366 037000 011162 CDGNN	-001- 35	BL	INTRPN03

0015421

39 CLRBDIN3

CLEAR ON-LINE BIN

0015421	40	ZBIN	
0015421 01 000370 113002 -----	-001- 41	MIS	2
0015422 01 000371 107322 -----	-001- 42	DATA	36562
0015423	43	RTN_TBL	TBLRTN6
0015423 01 000372 071400 -----	-001- 44	GA	
0015424 01 000373 031000 015430 0015430	-001- 45	LAL	RD,TBLRTN6,RAD
0015426 01 000375 037000 011162 CDGNN	-001- 46	BL	INTRPN03

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI . ISSUE 04 PAGE 21

TEST 70 SEGMENT 5

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

W77D

0015430

03 TBLRTN6

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 22

TEST 70 SEGMENT 6

23:13:53 2/05/81 ****

PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W770

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 70 SEGMENT 6
-001- 04 # *
-001- 05 # *****

0015430 01 000377 000600 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(6) 6,NTESTSEG

11 # THE "SBTC" CROSSPOINT SHOULD SET THE BTC BIT IN THE SS
12 # WHICH STOPS THE TI AND STARTS A 256 MICROSECOND BACKUP
13 # TIMER. WHEN THE BACKUP TIMER TIMES OUT, THE BTC BIT
14 # SHOULD BE CLEARED AND THE TI SHOULD START COUNTING.

0015431 16 # ALLOW 2.5 MS BEFORE NEXT TIMED
# INTERRUPT ASSUMING NO INTERRUPT MORE
# FREQUENT THAN 5 MS IS EQUIPPED.

-001- 19 # NO3_CODE
-001- 20 # PROCESS SACC CODED ROUTINE AT ADDRESS INSYN4.
0015431 01 000400 040043 000000 CDGNM -001- 21 VFD 1,0 2,2 7,0 6,NNO3CD
0015432 01 000401 000000 015466 0015466 -001- 22 ADDR INSYN4

0015434 24 TBLRTN7
-001- 25 # MICRO
-001- 26 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 27 # MISCELLANEOUS CROSSPOINT SBTCX
0015434 01 000403 020005 ----- CDGNM -001- 28 VFD 1,0 2,1 7,0 6,NMICRO
0015435 01 000404 025471 ----- -001- 29 VFD 16,SBTCX

-001- 31 # SEND
-001- 32 # SEND 0(0000000) TO OFF-LINE DUPLICATE B REGISTERS.
-001- 33 # PARITY IS NORMAL.
0015436 01 000405 056706 ----- CDGNM -001- 34 VFD 1,0 2,2 7,B(1110111) 6,NSEND
0015437 01 000406 000000 000000 -001- 35 ADDR 0(0000000)

-001- 37 # MICRO
-001- 38 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 39 # MISCELLANEOUS CROSSPOINT BRXTIX
0015441 01 000410 020005 ----- CDGNM -001- 40 VFD 1,0 2,1 7,0 6,NMICRO
0015442 01 000411 154066 ----- -001- 41 VFD 16,BRXTIX

-001- 43 # NO3_CODE
-001- 44 # PROCESS SACC CODED ROUTINE AT ADDRESS CLRBIN4.
0015443 01 000412 040043 000000 CDGNM -001- 45 VFD 1,0 2,2 7,0 6,NNO3CD
0015444 01 000413 000000 015477 0015477 -001- 46 ADDR CLRBIN4

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 70 SEGMENT 6

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PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGN TI

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```

0015446          01 TBLRTN8
-001- 02 # CALLPROS
-001- 03 # RETURN TO CALL PROCESSING FOR 2.25 MS. INTERVALS.
0015446 01 000415 020004 ----- CDGNM -001- 04 # VFD 1,0 2,1 6,0 1,0 6,NPROS
0015447 01 000416 000002 ----- -001- 05 # VFD 16,2

-001- 07 # RETRN
-001- 08 # RETURN OFF-LINE SS TO ON-LINE MCHB.
0015450 01 000417 016711 ----- CDGNM -001- 09 # VFD 1,0 2,0 7,B(110111) 6,N2RETRN

0015451          11 # THE BTC BIT SHOULD HAVE BEEN CLEARED
# AFTER 256 MICROSECONDS

-001- 13 # COMPARE
-001- 14 # COMPARE ON-LINE MCHB BIT (S(BTC)) TO 0.
-001- 15 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015451 01 000420 020314 ----- CDGNM -001- 16 # VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(BTC)) 6,NCOMPARE
0015452 01 000421 000000 ----- -001- 17 # VFD 15,0 1,0

-001- 19 # FAILTST
-001- 20 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLREBTC.
-001- 21 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015453 01 000422 020017 ----- CDGNM -001- 22 # VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0015454 01 000423 000007 ----- -001- 23 # VFD 16,FLREBTC

-001- 25 # MICRO
-001- 26 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 27 # TO FIELD = MCHBXT FROM FIELD = TIXF
0015455 01 000424 020005 ----- CDGNM -001- 28 # VFD 1,0 2,1 7,0 6,NMICRO
0015456 01 000425 114623 ----- -001- 29 # VFD 8,MCHBXT 6,TIXF

-001- 31 # RETRN
-001- 32 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0015457 01 000426 007710 ----- CDGNM -001- 33 # VFD 1,0 2,0 7,B(01111111) 6,NRETRN

-001- 35 # COMPARE NOT
-001- 36 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(00000000).
-001- 37 # IF COMPARISON DOES NOT EXIST, SKIP NEXT TABLE ENTRY.
0015460 01 000427 054014 ----- CDGNM -001- 38 # VFD 1,LPINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
0015461 01 000430 000000 000000 -001- 39 # ADDR 0(00000000)

0015463          41 # THE TIMER SHOULD NOW BE RUNNING AS
# INDICATED BY A NON-ZERO VALUE.

-001- 43 # FAILTST
-001- 44 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLTICK.
-001- 45 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015463 01 000432 020017 ----- CDGNM -001- 46 # VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0015464 01 000433 000010 ----- -001- 47 # VFD 16,FLTICK

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 70 SEGMENT 6

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PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # PASSTST
-001- 02 # GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0015465 01 000434 000021 ----- CDGNTI -001- 03 VFD 1,0 2,0 7,0 6,NPASSTST

```

10 # 3ACC CODE FOR SEGMENT 6

```

0015466 13 INSYNC4 # ALLOW 2.5 MS. BEFORE NEXT TIMED
                                INTERRUPT
0015466 01 000435 103401 000020 15 LI RO,E(4)
0015470 16 CALL INSYNC
0015470 01 000437 037020 111163 CSYSUB -001- 17 BSA INSYNC
0015472 18 RTN_TBL TBLRTN7
0015472 01 000441 171400 ----- -001- 19 GA
0015473 01 000442 031000 015434 -001- 20 LAL RO,TBLRTN7,RAD
0015475 01 000444 037000 011162 CDGNTI -001- 21 BL INTRPN03

```

```

0015477 25 CLRBIN4 # CLEAR ON-LINE BIN
0015477 26 ZBIN
0015477 01 000446 113002 ----- -001- 27 MIS 2
0015500 01 000447 107322 ----- -001- 28 DATA 36562
0015501 29 RTN_TBL TBLRTN8
0015501 01 000450 071400 ----- -001- 30 GA
0015502 01 000451 031000 015446 -001- 31 LAL RO,TBLRTN8,RAD
0015504 01 000453 037000 011162 CDGNTI -001- 32 BL INTRPN03

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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PROGRAM_TIMER-TIMING_COUNTERS DIAGNOSTIC TEST

CDGNTI

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01 CTSD EXTERN INITTST1

07 # LINKAGE TO OFF-LINE CODE

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 71

23:13:53 2/05/81 ****

INTERRUPT DIAGNOSTIC TEST

CDGNIT W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 71, INTERRUPT
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0015506

-001- 10 CINRUPT CSECT

0015506 02 000000 000145 ----- CDGNM

-001- 14 VFD 1,0 2,0 2,0 2,0 3,1 6,NBGM

```

18 # SEGMENT 1
19 # EACH LEVEL OF INTERRUPT IS TESTED BY SETTING ITS REQUEST
20 # BIT IN THE "IS" REGISTER AND FIRING THE "TINT" CROSSPOINT.
21 # THIS SHOULD SET BOTH COPIES OF THE DS. THE CORRESPONDING
22 # MASK BIT IN THE "IM" REGISTER IS THEN SET AND "TINT"
23 # IS FIRED. THIS SHOULD RESULT IN CLEARING BOTH COPIES OF THE DS.

25 # SEGMENT 2
26 # THE "BIN" BIT IN THE SYSTEM STATE REGISTER IS TESTED.
27 # THIS BIT SHOULD MASK ALL INTERRUPTS

29 # SEGMENT 3
30 # A FUNCTIONAL TEST OF INTERRUPT PROCESSING IS CARRIED OUT.
31 # WHEN THE MICROCONTROL IS READY TO LOAD A NEW OP-CODE,
32 # IF AN INTERRUPT IS PRESENT, THE ADDRESS OF INTERRUPT
33 # MICROCODE IS JAMMED INTO THE MAR.
34 # THIS IS TESTED WITH THE "LDMAR" MAINTENANCE
35 # CHANNEL ORDER. IF AN ATTEMPT IS MADE TO LOAD THE MAR
36 # WITH ADDRESS 0 USING THIS ORDER AND DR=1 AND I=0, WHEN
37 # AN INTERRUPT IS PRESENT, THE ADDRESS OF INTERRUPT MICROCODE
38 # SHOULD BE JAMMED INTO THE MAR.

40 # SEGMENT 4
41 # TEST THE MICRO-SEQUENCING OF THE INTERRUPT CIRCUITRY BY STOPPING
42 # THE CLOCK AND STEPPING ONE HALF PHASE AT A TIME. BEFORE AN
43 # INTERRUPT CAN BE PROCESSED THE "ALL ZEROS" MUST BE DETECTED IN
44 # THE MAR AND THE CLOCK MUST CYCLE THRU P1. AT P3 THE "LINT"
45 # SIGNAL BECOMES ACTIVE, WHICH JAMS THE MAR TO 0(120) AT P1 THE
46 # RESULTS ARE CHECKED BY RETURNING THE MAR OUTPUT AND COMPARING
47 # THE CONTENTS TO THAT OF THE FIRST MICROSTORE LOCATION OF THE
48 # INTERRUPT MICRO-CODE.

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

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TEST 71 SEGMENT 1

23:13:53 2/05/81 ****

INTERRUPT DIAGNOSTIC TEST

CDGNTI W770

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 71 SEGMENT 1
-001- 04 # *
-001- 05 # *****

0015507 02 000001 000100 ----- CDGNTI -001- 08 VFD 1,0 2,0 2,0 5,D(1) 6,NTESTSEG

11 # EACH LEVEL OF INTERRUPT IS TESTED BY SETTING ITS REQUEST
12 # BIT IN THE "IS" REGISTER AND FIRING THE "TINT" CROSSPOINT.
13 # THIS SHOULD SET BOTH COPIES OF THE DS. THE CORRESPONDING
14 # MASK BIT IN THE "IM" REGISTER IS THEN SET AND "TINT"
15 # IS FIRED. THIS SHOULD RESULT IN CLEARING BOTH COPIES OF THE DS.

-001- 17 # LP BEGIN
-001- 18 # BEGIN 16 LOOPS.
0015510 02 000002 002001 ----- CDGNTI -001- 19 INTLP VFD 1,0 2,0 7,D(16) 6,NBEGIN

-001- 21 # MICRO
-001- 22 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 23 # MISCELLANEOUS CROSSPOINT ZDSX
0015511 02 000003 020005 ----- CDGNTI -001- 24 VFD 1,0 2,1 7,0 6,NMICRO
0015512 02 000004 146072 ----- -001- 25 VFD 16,ZDSX

-001- 27 # MICRO
-001- 28 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 29 # MISCELLANEOUS CROSSPOINT SBRX
0015513 02 000005 020005 ----- CDGNTI -001- 30 VFD 1,0 2,1 7,0 6,NMICRO
0015514 02 000006 023712 ----- -001- 31 VFD 16,SBRX

-001- 33 # MICRO
-001- 34 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 35 # TO FIELD = IS_RXT FROM FIELD = BRXF
0015515 02 000007 020005 ----- CDGNTI -001- 36 VFD 1,0 2,1 7,0 6,NMICRO
0015516 02 000010 033342 ----- -001- 37 VFD 8,IS_RXT 8,BRXF

-001- 39 # SEND
-001- 40 # SEND 0(00000004) TO OFF-LINE MCHB.
-001- 41 # PARITY IS NORMAL.
0015517 02 000011 047706 ----- CDGNTI -001- 42 VFD 1,0 2,2 7,B(01111111) 6,NSEND
0015520 02 000012 000000 000004 -001- 43 ADDR 0(00000004)

-001- 45 # MICRO
-001- 46 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 47 # TO FIELD = SS_RXT FROM FIELD = MCHBFX
0015522 02 000014 020005 ----- CDGNTI -001- 48 VFD 1,0 2,1 7,0 6,NMICRO
0015523 02 000015 107231 ----- -001- 49 VFD 8,SS_RXT 8,MCHBFX

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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INTERRUPT DIAGNOSTIC TEST

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-001- 02 # SEND
-001- 03 # SEND CONSTANTS TO OFF-LINE GENERAL REGISTER D.
-001- 04 # PARITY IS NORMAL.
0015524 02 000016 157606 ----- CGNM -001- 05 VFD 1,1 2,2 7,B(11111111) 6,NSEND
0015525 02 000017 051400 ----- -001- 06 VFD 8,ROXT 2,0 2,0(C) # LOOP 1
0015526 02 000020 000001 ----- -001- 07 VFD 16,0(000001)
0015527 02 000021 051400 ----- -001- 08 VFD 8,ROXT 2,0 2,0(C) # LOOP 2
0015530 02 000022 000002 ----- -001- 09 VFD 16,0(000002)
0015531 02 000023 051400 ----- -001- 10 VFD 8,ROXT 2,0 2,0(C) # LOOP 3
0015532 02 000024 000004 ----- -001- 11 VFD 16,0(000004)
0015533 02 000025 051400 ----- -001- 12 VFD 8,ROXT 2,0 2,0(C) # LOOP 4
0015534 02 000026 000011 ----- -001- 13 VFD 16,0(000011)
0015535 02 000027 051400 ----- -001- 14 VFD 8,ROXT 2,0 2,0(C) # LOOP 5
0015536 02 000030 000020 ----- -001- 15 VFD 16,0(000020)
0015537 02 000031 051400 ----- -001- 16 VFD 8,ROXT 2,0 2,0(C) # LOOP 6
0015540 02 000032 000040 ----- -001- 17 VFD 16,0(000040)
0015541 02 000033 051400 ----- -001- 18 VFD 8,ROXT 2,0 2,0(C) # LOOP 7
0015542 02 000034 000100 ----- -001- 19 VFD 16,0(000100)
0015543 02 000035 051400 ----- -001- 20 VFD 8,ROXT 2,0 2,0(C) # LOOP 8
0015544 02 000036 000200 ----- -001- 21 VFD 16,0(000200)
0015545 02 000037 051400 ----- -001- 22 VFD 8,ROXT 2,0 2,0(C) # LOOP 9
0015546 02 000040 000400 ----- -001- 23 VFD 16,0(000400)
0015547 02 000041 051400 ----- -001- 24 VFD 8,ROXT 2,0 2,0(C) # LOOP 10
0015550 02 000042 001000 ----- -001- 25 VFD 16,0(001000)
0015551 02 000043 051400 ----- -001- 26 VFD 8,ROXT 2,0 2,0(C) # LOOP 11
0015552 02 000044 002000 ----- -001- 27 VFD 16,0(002000)
0015553 02 000045 051400 ----- -001- 28 VFD 8,ROXT 2,0 2,0(C) # LOOP 12
0015554 02 000046 004000 ----- -001- 29 VFD 16,0(004000)
0015555 02 000047 051400 ----- -001- 30 VFD 8,ROXT 2,0 2,0(C) # LOOP 13
0015556 02 000050 010000 ----- -001- 31 VFD 16,0(010000)
0015557 02 000051 051400 ----- -001- 32 VFD 8,ROXT 2,0 2,0(C) # LOOP 14
0015560 02 000052 020000 ----- -001- 33 VFD 16,0(020000)
0015561 02 000053 051400 ----- -001- 34 VFD 8,ROXT 2,0 2,0(C) # LOOP 15
0015562 02 000054 040000 ----- -001- 35 VFD 16,0(040000)
0015563 02 000055 051400 ----- -001- 36 VFD 8,ROXT 2,0 2,0(C) # LOOP 16
0015564 02 000056 100000 ----- -001- 37 VFD 16,0(100000)

-001- 39 # MICRO
-001- 40 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0015565 02 000057 020005 ----- CGNM -001- 41 # TO FIELD = IS_SXT FROM FIELD = ROXF
0015566 02 000060 034523 ----- -001- 42 VFD 1,0 2,1 7,0 6,NMICRO
-001- 43 VFD 8,IS_SXT 8,ROXF

-001- 45 # SEND
-001- 46 # SEND CONSTANTS TO OFF-LINE MCHB.
0015567 02 000061 147706 ----- CGNM -001- 47 # PARITY IS NORMAL.
0015570 02 000062 000000 177776 -001- 48 VFD 1,1 2,2 7,B(01111111) 6,NSEND
-001- 49 ADDR 0(0177776) # LOOP 1

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

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0015572 02 000064 000000 177775 -001- 01 ADDR 0(0177775) # LOOP 2
0015574 02 000066 000000 177773 -001- 02 ADDR 0(0177773) # LOOP 3
0015576 02 000070 000000 177767 -001- 03 ADDR 0(0177767) # LOOP 4
0015600 02 000072 000000 177757 -001- 04 ADDR 0(0177757) # LOOP 5
0015602 02 000074 000000 177737 -001- 05 ADDR 0(0177737) # LOOP 6
0015604 02 000076 000000 177677 -001- 06 ADDR 0(0177677) # LOOP 7
0015606 02 000100 000000 177577 -001- 07 ADDR 0(0177577) # LOOP 8
0015610 02 000102 000000 177377 -001- 08 ADDR 0(0177377) # LOOP 9
0015612 02 000104 000000 176777 -001- 09 ADDR 0(0176777) # LOOP 10
0015614 02 000106 000000 175777 -001- 10 ADDR 0(0175777) # LOOP 11
0015616 02 000110 000000 173777 -001- 11 ADDR 0(0173777) # LOOP 12
0015620 02 000112 000000 167777 -001- 12 ADDR 0(0167777) # LOOP 13
0015622 02 000114 000000 157777 -001- 13 ADDR 0(0157777) # LOOP 14
0015624 02 000116 000000 137777 -001- 14 ADDR 0(0137777) # LOOP 15
0015626 02 000120 000000 077777 -001- 15 ADDR 0(0077777) # LOOP 16

-001- 17 # MICRO
-001- 18 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 19 # TO FIELD = IMXT FROM FIELD = MCHBXF
0015630 02 000122 020005 ----- CDGNTI VFD 1,0 2,1 7,0 6,NMICRO
0015631 02 000123 103631 ----- -001- 20 VFD 8,IMXT 8,MCHBXF
-001- 21 # OPERATE TEST INTERRUPT CROSSPOINT

0015632 -001- 23 # MICRO
-001- 24 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 25 # MISCELLANEOUS CROSSPOINT TINTX
0015632 02 000124 020005 ----- CDGNTI -001- 26 VFD 1,0 2,1 7,0 6,NMICRO
0015633 02 000125 146074 ----- -001- 27 VFD 16,TINTX
-001- 28

-001- 30 # RETRN
-001- 31 # RETURN OFF-LINE MCS TO ON-LINE MCHB.
0015634 02 000126 017311 ----- CDGNTI -001- 32 VFD 1,0 2,0 7,B(111011) 6,MZRETRN

-001- 34 # COMPARE
-001- 35 # COMPARE ON-LINE MCHB BIT S(DSD) TO 1.
-001- 36 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015635 02 000127 020214 ----- CDGNTI -001- 37 VFD 1,LPIXND 2,1 1,0 1,SUCCES 5,S(DSD) 6,NCOMPARE
0015636 02 000130 000001 ----- -001- 38 VFD 15,0 1,1

-001- 40 # FAILTST
-001- 41 # FAILURE EXIT
-001- 42 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015637 02 000131 120017 ----- CDGNTI -001- 43 VFD 1,1 2,1 5,0 2,0 6,NFAILTST
0015640 02 000132 000001 ----- -001- 44 VFD 16,FLIP00 # LOOP 1
0015641 02 000133 000002 ----- -001- 45 VFD 16,FLIP01 # LOOP 2
0015642 02 000134 000003 ----- -001- 46 VFD 16,FLIP02 # LOOP 3
0015643 02 000135 000004 ----- -001- 47 VFD 16,FLIP03 # LOOP 4
0015644 02 000136 000005 ----- -001- 48 VFD 16,FLIP04 # LOOP 5
0015645 02 000137 000006 ----- -001- 49 VFD 16,FLIP05 # LOOP 6

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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0015646	02	000140	000007	-----	-001- 01	VFD	16,FLIP06	#	LOOP 7
0015647	02	000141	000010	-----	-001- 02	VFD	16,FLIP07	#	LOOP 8
0015650	02	000142	000011	-----	-001- 03	VFD	16,FLIP08	#	LOOP 9
0015651	02	000143	000012	-----	-001- 04	VFD	16,FLIP09	#	LOOP 10
0015652	02	000144	000013	-----	-001- 05	VFD	16,FLIP10	#	LOOP 11
0015653	02	000145	000014	-----	-001- 06	VFD	16,FLIP11	#	LOOP 12
0015654	02	000146	000015	-----	-001- 07	VFD	16,FLIP12	#	LOOP 13
0015655	02	000147	000016	-----	-001- 08	VFD	16,FLIP13	#	LOOP 14
0015656	02	000150	000017	-----	-001- 09	VFD	16,FLIP14	#	LOOP 15
0015657	02	000151	000020	-----	-001- 10	VFD	16,FLIP15	#	LOOP 16
					-001- 12 #		COMPARE		
					-001- 13 #		COMPARE ON-LINE MCHB BIT 5(DS1) TO 1.		
					-001- 14 #		IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.		
0015660	02	000152	020314	-----	-001- 15	VFD	1,LPINDX 2,1 1,0 1,SUCCESS 5,S(DS1) 6,NCOMPARE		
0015661	02	000153	000001	-----	-001- 16	VFD	15,0 1,1		
					-001- 18 #		FAILTST		
					-001- 19 #		FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLIPODA.		
					-001- 20 #		DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.		
0015662	02	000154	020017	-----	-001- 21	VFD	1,0 2,1 5,0 2,0 6,NFAILTST		
0015663	02	000155	000021	-----	-001- 22	VFD	16,FLIPODA		
					-001- 24 #		SEND		
					-001- 25 #		SEND 0(D177777) TO OFF-LINE MCHB.		
					-001- 26 #		PARITY IS NORMAL.		
0015664	02	000156	047706	-----	-001- 27	VFD	1,0 2,2 7,B(D1111111) 6,NSEND		
0015665	02	000157	000000	177777	-001- 28	ADDR	0(D177777)		
					-001- 30 #		MICRO		
					-001- 31 #		PERFORM MICRO INSTRUCTION IN OFF-LINE CU.		
					-001- 32 #		TO FIELD = IMXT FROM FIELD = MCHBXF		
0015667	02	000161	020005	-----	-001- 33	VFD	1,0 2,1 7,0 6,NMICRO		
0015670	02	000162	103631	-----	-001- 34	VFD	8,IMXT 8,MCHBXF		
					-001- 36 #		MICRO		
					-001- 37 #		PERFORM MICRO INSTRUCTION IN OFF-LINE CU.		
					-001- 38 #		MISCELLANEOUS CROSSPOINT TINTX		
0015671	02	000163	020005	-----	-001- 39	VFD	1,0 2,1 7,0 6,NMICRO		
0015672	02	000164	146074	-----	-001- 40	VFD	16,TINTX		
					-001- 42 #		RETRN		
					-001- 43 #		RETURN OFF-LINE MCS TO ON-LINE MCHB.		
0015673	02	000165	017311	-----	-001- 44	VFD	1,0 2,0 7,B(1111011) 6,NZRETRN		

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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INTERRUPT DIAGNOSTIC TEST

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```

-001- 01 # COMPARE
-001- 02 # COMPARE ON-LINE MCHB BIT S(DSO) TO 0.
-001- 03 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015674 02 000166 020214 ----- CDGNM VFD 1,LPINBX 2,1 1,0 1,SUCCESS 5,S(DSO) 6,NCOMPARE
0015675 02 000167 000000 ----- VFD 15,0 1,0

-001- 07 # FAILTST
-001- 08 # FAILURE EXIT
-001- 09 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015676 02 000170 120017 ----- CDGNM VFD 1,1 2,1 5,0 2,0 6,NFAILTST
0015677 02 000171 000024 ----- VFD 16,FLMASK00 # LOOP 1
0015700 02 000172 000025 ----- VFD 16,FLMASK01 # LOOP 2
0015701 02 000173 000026 ----- VFD 16,FLMASK02 # LOOP 3
0015702 02 000174 000027 ----- VFD 16,FLMASK03 # LOOP 4
0015703 02 000175 000030 ----- VFD 16,FLMASK04 # LOOP 5
0015704 02 000176 000031 ----- VFD 16,FLMASK05 # LOOP 6
0015705 02 000177 000032 ----- VFD 16,FLMASK06 # LOOP 7
0015706 02 000200 000033 ----- VFD 16,FLMASK07 # LOOP 8
0015707 02 000201 000034 ----- VFD 16,FLMASK08 # LOOP 9
0015710 02 000202 000035 ----- VFD 16,FLMASK09 # LOOP 10
0015711 02 000203 000036 ----- VFD 16,FLMASK10 # LOOP 11
0015712 02 000204 000037 ----- VFD 16,FLMASK11 # LOOP 12
0015713 02 000205 000040 ----- VFD 16,FLMASK12 # LOOP 13
0015714 02 000206 000041 ----- VFD 16,FLMASK13 # LOOP 14
0015715 02 000207 000042 ----- VFD 16,FLMASK14 # LOOP 15
0015716 02 000210 000043 ----- VFD 16,FLMASK15 # LOOP 16

-001- 28 # MICRO
-001- 29 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0015717 02 000211 020005 ----- CDGNM TO FIELD = IMXT FROM FIELD = NOPXF
0015720 02 000212 103760 ----- VFD 1,0 2,1 7,0 6,NMICRO
-001- 32 VFD 0,IMXT 8,NOPXF

-001- 34 # LP_END
-001- 35 # TERMINATE LOOP.
0015721 02 000213 040002 000000 CDGNM VFD 1,0 2,2 7,0 6,NLP_END
0015722 02 000214 000000 015510 015510 -001- 37 ADDR LPSTART

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 71 SEGMENT 2

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INTERRUPT DIAGNOSTIC TEST

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```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 71 SEGMENT 2
-001- 04 # *
-001- 05 # *****

0015724 02 000216 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

11 # THE "BIN" BIT IN THE SYSTEM STATE REGISTER IS TESTED.
12 # THIS BIT SHOULD MASK ALL INTERRUPTS

-001- 14 # SEND
-001- 15 # SEND 0(0000001) TO OFF-LINE MCHB.
-001- 16 # PARITY IS NORMAL.
0015725 02 000217 047706 ----- CDGNM -001- 17 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0015726 02 000220 000000 000001 -001- 18 ADDR 0(0000001)

-001- 20 # MICRO
-001- 21 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 22 # TO FIELD = IS_SXT FROM FIELD = MCHBZF
0015730 02 000222 020005 ----- CDGNM -001- 23 VFD 1,0 2,1 7,0 6,NMICRO
0015731 02 000223 034631 ----- -001- 24 VFD 8,IS_SXT 8,MCHBZF

-001- 26 # MICRO
-001- 27 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 28 # MISCELLANEOUS CROSSPOINT ZBRX
0015732 02 000224 020005 ----- CDGNM -001- 29 VFD 1,0 2,1 7,0 6,NMICRO
0015733 02 000225 025712 ----- -001- 30 VFD 16,ZBRX

-001- 32 # MICRO
-001- 33 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 34 # TO FIELD = INXT FROM FIELD = BRXF
0015734 02 000226 020005 ----- CDGNM -001- 35 VFD 1,0 2,1 7,0 6,NMICRO
0015735 02 000227 103742 ----- -001- 36 VFD 8,INXT 8,BRXF

-001- 38 # SEND
-001- 39 # SEND 0(00000004) TO OFF-LINE MCHB.
-001- 40 # PARITY IS NORMAL.
0015736 02 000230 047706 ----- CDGNM -001- 41 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0015737 02 000231 000000 000004 -001- 42 ADDR 0(0000004)

-001- 44 # MICRO
-001- 45 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 46 # TO FIELD = SS_SXT FROM FIELD = MCHBZF
0015741 02 000233 020005 ----- CDGNM -001- 47 VFD 1,0 2,1 7,0 6,NMICRO
0015742 02 000234 105631 ----- -001- 48 VFD 8,SS_SXT 8,MCHBZF

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 71 SEGMENT 2

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INTERRUPT DIAGNOSTIC TEST

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-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # MISCELLANEOUS CROSSPOINT TINTX
0015743 02 000235 020005 ----- CDGNN VFD 1,0 2,1 7,0 6,NMICRO
0015744 02 000236 146074 ----- VFD 16,TINTX
0015745 07 # THE INTERRUPT SHOULD NOT BE RECOGNIZE
D
-001- 09 # RETRN
-001- 10 # RETURN OFF-LINE MCS TO ON-LINE MCHB.
0015745 02 000237 017311 ----- CDGNN VFD 1,0 2,0 7,B(1111011) 6,NZRETRN
-001- 11
-001- 13 # COMPARE
-001- 14 # COMPARE ON-LINE MCHB BIT S(DSO) TO 0.
-001- 15 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015746 02 000240 020214 ----- CDGNN VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,S(DSO) 6,NCOMPARE
0015747 02 000241 000000 ----- VFD 15,0 1,0
-001- 16
-001- 17
-001- 19 # FAILTST
-001- 20 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLBIN.
-001- 21 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015750 02 000242 020017 ----- CDGNN VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0015751 02 000243 000044 ----- VFD 16,FLBIN
-001- 22
-001- 23

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 71 SEGMENT 3

23:13:53 2/05/81 ****

INTERRUPT DIAGNOSTIC TEST

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-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 71 SEGMENT 3
-001- 04 # *
-001- 05 # *****

0015752 02 000244 000300 ----- CDGNN -001- 08 VFD 1,0 2,0 2,0 5,0(3) 6,NTESTSEG

11 # A FUNCTIONAL TEST OF INTERRUPT PROCESSING IS CARRIED OUT.
12 # WHEN THE MICROCONTROL IS READY TO LOAD A NEW OP-CODE,
13 # IF AN INTERRUPT IS PRESENT, THE ADDRESS OF INTERRUPT
14 # MICROCODE IS JAMMED INTO THE MAR.
15 # THIS IS TESTED WITH THE "LOWMAR" MAINTENANCE
16 # CHANNEL ORDER. IF AN ATTEMPT IS MADE TO LOAD THE MAR
17 # WITH ADDRESS 0 USING THIS ORDER AND DR=1 AND I=0, WHEN
18 # AN INTERRUPT IS PRESENT, THE ADDRESS OF INTERRUPT MICROCODE

-001- 20 # SEND
-001- 21 # SEND 0(0000004) TO OFF-LINE MCHB.
-001- 22 # PARITY IS NORMAL.
0015753 02 000245 047706 ----- CDGNN -001- 23 VFD 1,0 2,2 7,8(0111111) 6,NSEND
0015754 02 000246 000000 000004 -001- 24 ADDR 0(0000004)

-001- 26 # MICRO
-001- 27 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 28 # TO FIELD = SS_RXT FROM FIELD = MCHB XF
0015756 02 000250 020005 ----- CDGNN -001- 29 VFD 1,0 2,1 7,0 6,NMICRO
0015757 02 000251 107231 ----- -001- 30 VFD 0,SS_RXT 8,MCHB XF

-001- 32 # MICRO
-001- 33 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 34 # MISCELLANEOUS CROSSPOINT ZBRX
0015760 02 000252 020005 ----- CDGNN -001- 35 VFD 1,0 2,1 7,0 6,NMICRO
0015761 02 000253 025712 ----- -001- 36 VFD 16,ZBRX

-001- 38 # MICRO
-001- 39 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 40 # TO FIELD = IMXT FROM FIELD = BRXF
0015762 02 000254 020005 ----- CDGNN -001- 41 VFD 1,0 2,1 7,0 6,NMICRO
0015763 02 000255 103742 ----- -001- 42 VFD 8,IMXT 8,BR XF

-001- 44 # SEND
-001- 45 # SEND 0(0000002) TO OFF-LINE MCHB.
-001- 46 # PARITY IS NORMAL.
0015764 02 000256 047706 ----- CDGNN -001- 47 VFD 1,0 2,2 7,8(0111111) 6,NSEND
0015765 02 000257 000000 000002 -001- 48 ADDR 0(0000002)

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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0015767 02 000261 020005 ----- CDGNH -001- 01 # MICRO
0015770 02 000262 034631 ----- -001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # TO FIELD = IS_SXT FROM FIELD = MCHBKF
-001- 04 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 05 # VFD 8,18_SXT 8,MCHBKF

0015771 02 000263 020033 ----- CDGNH -001- 07 # LOAD_MAR
-001- 08 # LOAD AND FREEZE THE OFF-LINE MAR WITH 0(000000).
-001- 09 # VFD 1,0 2,1 7,0 6,NFRZ
0015772 02 000264 000000 ----- -001- 10 # VFD 16,0(000000)

-001- 12 # READ_MICRO
-001- 13 # RETURN OFF-LINE LOW BITS OF MICRO WORD ADDRESSED IN MAR.
0015773 02 000265 000036 ----- CDGNH -001- 14 # VFD 1,0 2,0 6,0 1,0 6,NRDMICRO

-001- 16 # COMPARE
-001- 17 # COMPARE ON-LINE MAINTENANCE CHANNEL BUFFER TO 0(0031613).
0015774 02 000266 050014 ----- CDGNH -001- 18 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0015775 02 000267 000000 031613 -001- 19 # VFD 1,1,PINDX 2,2 1,1 1,SUCCESS 5,0 6,NCOMPARE
-001- 20 # ADDR 0(0031613)

-001- 22 # FAILTST
-001- 23 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLINTFNT.
-001- 24 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0015777 02 000271 020017 ----- CDGNH -001- 25 # VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0016000 02 000272 000045 ----- -001- 26 # VFD 16,FLINTFNT

-001- 28 CINTRUPT OM 0(273) # 12328
-001- 29 # NOTE ***** THE FIRST ADDRESS OVERWRITTEN IS 000273 *****

-001- 32 # PASSTST
-001- 33 # GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0016001 02 000273 000021 ----- CDGNH -001- 34 # VFD 1,0 2,0 7,0 6,NPASSTST

0016002 -001- 36 # EOW # 12328
-001- 37 # NOTE ***** THE LAST ADDRESS OVERWRITTEN IS 000273 *****

40 # TEST THE MICRO-SEQUENCING OF THE INTERRUPT CIRCUITRY BY STOPPING
41 # THE CLOCK AND STEPPING ONE HALF PHASE AT A TIME. BEFORE AN
42 # INTERRUPT CAN BE PROCESSED THE "ALL ZEROS" MUST BE DETECTED IN
43 # THE MAR AND THE CLOCK MUST CYCLE THRU P1. AT P3 THE "LINT"
44 # SIGNAL BECOMES ACTIVE, WHICH JAMS THE MAR TO 0(120) AT P1 THE
45 # RESULTS ARE CHECKED BY RETURNING THE MIR OUTPUT AND COMPARING
46 # THE CONTENTS TO THAT OF THE FIRST MICROSTORE LOCATION OF THE
47 # INTERRUPT MICRO-CODE.

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, 10 TESTS

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TEST 71 SEGMENT 3

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INTERRUPT DIAGNOSTIC TEST

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0016002      01      # SHUT OFF AUTOMATIC RETURNS TO CALL
                        PROCESSING AND ALLOW 2.5 MSEC BEFORE
                        NEXT TIMED INTERRUPT.

-001- 04 # RTN_BLM
-001- 05 # TURN OFF AUTOMATIC RETURNS TO BLM EVERY 20 TABLE ENTRIES.
0016002 02 000274 000144 ----- CDGNM -001- 06 VFD 1,0 2,0 6,0 1,1 6,NRTNBLM

-001- 08 # CALLPROS
-001- 09 # RETURN TO CALL PROCESSING FOR ONE BASE LEVEL LOOP.
0016003 02 000275 000004 ----- CDGNM -001- 10 VFD 1,0 2,0 6,0 1,0 6,NPROS

0016004      12      # INITIALIZE OFF-LINE TO KNOWN STATE BY
                        SETTING "STOP" BIT, THIS BIT MUST BE
                        CLEARED AFTER THE CLOCK IS STOPPED.

-001- 15 # STOP OFF
-001- 16 # SET STOP BIT IN OFF-LINE CU.
0016004 02 000276 017627 ----- CDGNM -001- 17 VFD 1,0 2,0 7,B(1111110) 6,NSTOP

0016005      19      # INSURE THAT "BIN" IS CLEARED IN THE
                        OFF-LINE.

-001- 21 # SEND
-001- 22 # SEND 0(000004) TO OFF-LINE GENERAL REGISTER 1.
-001- 23 # PARITY IS NORMAL.
0016005 02 000277 057606 ----- CDGNM -001- 24 VFD 1,0 2,2 7,B(1111110) 6,NSEND
0016006 02 000300 052400 ----- -001- 25 VFD 8,R1XT 2,0 2,0(0)
0016007 02 000301 000017 ----- -001- 26 VFD 16,0(000017)

-001- 28 # MICRO
-001- 29 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 30 # TO FIELD = SS_RXT FROM FIELD = R1XF
0016010 02 000302 020005 ----- CDGNM -001- 31 VFD 1,0 2,1 7,0 6,NMICRO
0016011 02 000303 107125 ----- -001- 32 VFD 8,SS_RXT 8,R1XF

-001- 34 # NO3_CODE
-001- 35 # PROCESS 3ACC CODED ROUTINE AT ADDRESS **2.
0016012 02 000304 040043 000000 CDGNM -001- 36 VFD 1,0 2,2 7,0 6,NNO3CD
0016013 02 000305 000000 016015 0016015 -001- 37 ADDR **2

0016015      39 TESTINTSEQ      # NO. 3 CODE IS USED FOR SPEED.
0016015 02 000307 103401 000020 40 LI RD,E(4)
0016017      41 CALL INSYNC      # ALLOW 2.5 MSEC BEFORE NEXT TIMED
                                INTERRUPT.

0016017 02 000311 037020 111163 CSYSUB -001- 43 BSA INSYNC
0016021      44 LMCHF STOPCLK
0016021 02 000313 113027 ----- -002- 44 MIS STOPCLK
0016022 02 000314 160706 037020 -003- 46 VFD 8,MCHCXT 8,IBXF
0016023      47 CALL SMCHF
0016023 02 000315 037020 011077 CDGNM -002- 48 BSA SMCHF
0016025      49 LMCHF MSTART      # CLEAR "STOP" FLIP-FLOP FOR INTERRUPT

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 71 SEGMENT 3

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0016025 02 000317 113311 -----	-002- 01	MIS	MSTART		
0016026 02 000320 160706 037020	-003- 02	VFD	8,MCHCXT 8,IBXF		
0016027	-001- 03	CALL	SMCHF		
0016027 02 000321 037020 011077 CDGNM	-002- 04	BSA	SMCHF		
0016031	-002- 05	MINODE	IOCC		# INTERRUPT THE OFF-LINE CU.
0016031 02 000323 113000 -----	-001- 06	MIS	0		
0016032 02 000324 016750 -----	-002- 07	DATA	IOCCX		
0016033 02 000325 003012 -----	08	LN	RD,10		# SET UP LOOP FOR TOGGLE CLOCK
0016034	09	LOOPSTRT			
0016034	10	LMCHF	TOGCLK		# TOGGLE ONE-HALF CLOCK PHASE AT A TIME.
0016034 02 000326 113047 -----	-002- 12	MIS	TOGCLK		
0016035 02 000327 160706 037020	-003- 13	VFD	8,MCHCXT 8,IBXF		
0016036	-001- 14	CALL	SMCHF		
0016036 02 000330 037020 011077 COGNM	-002- 15	BSA	SMCHF		
0016040	16	LMCHF	RTNHML		
0016040 02 000332 113225 -----	-002- 17	MIS	RTNHML		
0016041 02 000333 160706 037020	-003- 18	VFD	8,MCHCXT 8,IBXF		
0016042	-001- 19	CALL	SMCHF		
0016042 02 000334 037020 011077 COGNM	-002- 20	BSA	SMCHF		
0016044 02 000336 112403 -----	21	UNPK	MCHB		
0016045 02 000337 003465 170360	22	CI	R3,0(170360)		# MIR CONTENTS AT MICRO-STORE ADDRESS 0.
0016047 02 000341 055020 ----- 0016067	24	BNC	FAIL1		
0016050 02 000342 036060 016034 0016034	25	BX	R3,LOOPSTRT		
0016052	26	LMCHF	TOGCLK		# MAKE CLOCK PHASE P1 ACTIVE.
0016052 02 000344 013047 -----	-002- 27	MIS	TOGCLK		
0016053 02 000345 160706 037020	-003- 28	VFD	8,MCHCXT 8,IBXF		
0016054	-001- 29	CALL	SMCHF		
0016054 02 000346 037020 011077 COGNM	-002- 30	BSA	SMCHF		
0016056 02 000350 112403 -----	31	UNPK	MCHB		
0016057 02 000351 003465 031613	32	CI	R3,0(31613)		# MIR CONTENTS AT MICRO-STORE ADDRESS 0(120).
0016061 02 000353 055013 ----- 0016074	34	BNC	FAIL2		
0016062	35	RTN_TBL	PASSINT		
0016062 02 000354 071400 -----	-001- 36	GA			
0016063 02 000355 031000 016105 0016105	-001- 37	LAL	RD,PASSINT,RAD		
0016065 02 000357 037000 011162 CDGNM	-001- 38	BL	INTRPN03		
0016067	40	FAIL1			
0016067	41	RTN_TBL	FAILINT1		
0016067 02 000361 171400 -----	-001- 42	GA			
0016070 02 000362 031000 016101 0016101	-001- 43	LAL	RD,FAILINT1,RAD		
0016072 02 000364 037000 011162 CDGNM	-001- 44	BL	INTRPN03		

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 71 SEGMENT 3

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INTERRUPT DIAGNOSTIC TEST

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0016074      01 FAIL2
0016074      02      RTN_TBL FAILINT2
0016074 02 000366 171400 ----- -001- 03      GA
0016075 02 000367 031000 016103 0016103 -001- 04      LAL      RD,FAILINT2,RAD
0016077 02 000371 037000 011162 CDGNM -001- 05      BL      INTRPN03

0016101      07 FAILINT1                                # THE INTERRUPT ADDRESS WAS JAMMED INTO
                                                         THE MAR TOO SOON.

-001- 09 #      FAILTST
-001- 10 #      FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLB4INT.
-001- 11 #      DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016101 02 000373 020017 ----- CDGNM -001- 12      VFD      1,0 2,1 5,0 2,0 6,NFAILTST
0016102 02 000374 000047 ----- -001- 13      VFD      16,FLB4INT

0016103      15 FAILINT2                                # THE INTERRUPT ADDRESS WAS NOT JAMMED
                                                         INTO THE MAR AT THE 2ND P1.

-001- 17 #      FAILTST
-001- 18 #      FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLAFTINT.
-001- 19 #      DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016103 02 000375 020017 ----- CDGNM -001- 20      VFD      1,0 2,1 5,0 2,0 6,NFAILTST
0016104 02 000376 000050 ----- -001- 21      VFD      16,FLAFTINT

0016105      23 PASSINT
-001- 24 #      PASSTST
-001- 25 #      GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0016105 02 000377 000021 ----- CDGNM -001- 26      VFD      1,0 2,0 7,0 6,NPASSTST

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

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TEST 72

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ADDRESS_MATCHER DIAGNOSTIC TEST

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```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 72, ADDRESS_MATCHER
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0016206

-001- 10 CADMTCH CSECT

0016206 03 000000 000145 ----- CDGNN -001- 14 VFD 1,0 2,0 2,0 2,0 3,1 6,MN

```

18 # SEGMENT 1
19 # THE ABILITY OF THE "SAR" AND "AI" REGISTERS TO MATCH
20 # ON ALL ZEROS AND THEN ON ALL ONES IS TESTED.
21 # THE "AK" REGISTER IS SET TO ALL ZEROS TO ALLOW
22 # A "SAR-AI" MATCH TEST ON ALL BITS. THE "AME" BIT OF
23 # REGISTER "SS" IS SET TO ENABLE THE ADDRESS MATCHER CIRCUIT.
24 # THE "ADMI" BIT OF THE "IS" REGISTER IS TESTED FOR AN
25 # EXPECTED MATCH INDICATION.

27 # SEGMENT 2
28 # THE ABILITY OF THE ADDRESS MATCHER TO PICK UP A "SAR-AI"
29 # REGISTER MISMATCH IS TESTED. THE "SAR" REGISTER IS
30 # SET TO ALL ZEROS AND A "1" IS WALKED DOWN THE
31 # "AI" REGISTER. THE "AK" REGISTER IS SET TO ALL
32 # ZEROS TO ALLOW A "SAR-AI" MATCH TEST ON ALL BITS.
33 # THE "ADMI" BIT OF THE "IS" REGISTER IS TESTED
34 # FOR AN EXPECTED MISMATCH INDICATION.

36 # SEGMENT 3
37 # THE ABILITY OF THE ADDRESS MATCHER TO PICK UP A "SAR-AI"
38 # REGISTER MISMATCH IS TESTED. THE "AI" REGISTER IS
39 # SET TO ALL ZEROS AND A "1" IS WALKED DOWN THE
40 # "SAR" REGISTER. THE "AK" REGISTER IS SET TO ALL
41 # ZEROS TO ALLOW A "SAR-AI" MATCH TEST ON ALL BITS.
42 # THE "ADMI" BIT OF THE "IS" REGISTER IS TESTED
43 # FOR AN EXPECTED MISMATCH INDICATION.

45 # SEGMENT 4
46 # THE ABILITY OF THE "AK" REGISTER TO MASK ON EVERY BIT
47 # IS TESTED. THE "AK" AND "SAR" REGISTERS ARE SET TO
48 # ALL ONES FOR THIS TEST. ALL BITS OF THE "AI" REGISTER
49 # ARE SET TO ONES EXCEPT THE BIT LOCATION BEING TESTED

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 72

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ADDRESS_MATCHER DIAGNOSTIC TEST

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01 # WHICH IS SET TO A "0". THE "0" IS WALKED THRU
02 # EVERY BIT LOCATION OF THE "AI" REGISTER AND A
03 # SAR-AI COMPARE TEST IS PERFORMED. SINCE THE
04 # "AK" IS SET TO ALL ONES THE SAR-AI MISMATCHES
05 # SHOULD NOT BE DETECTED. THE "ADM1" BIT OF THE "IS"
06 # REGISTER IS TESTED FOR AN EXPECTED MATCH INDICATION.

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TEST 72 SEGMENT 1

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

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-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 72 SEGMENT 1
-001- 04 # *
-001- 05 # *****

0016207 03 000001 000100 ----- CGNM -001- 08 VFD 1,0 2,0 2,0 5,0(1) 6,NTESTSEG

11 # THE ABILITY OF THE "SAR" AND "AI" REGISTERS TO MATCH
12 # ON ALL ZEROS AND THEN ON ALL ONES IS TESTED.
13 # THE "AK" REGISTER IS SET TO ALL ZEROS TO ALLOW
14 # A "SAR-AI" MATCH TEST ON ALL BITS. THE "AME" BIT OF
15 # REGISTER "SS" IS SET TO ENABLE THE ADDRESS MATCHER CIRCUIT.
16 # THE "ADMI" BIT OF THE "IS" REGISTER IS TESTED FOR AN
17 # EXPECTED MATCH INDICATION.

0016210 19 # SETS AME BIT IS SS REGISTER TO
0016210 20 # ENABLE ADDRESS MATCHER
-001- 21 # SEND
-001- 22 # SEND 0(0000001) TO OFF-LINE MCHB.
-001- 23 # PARITY IS NORMAL.
0016210 03 000002 047706 ----- CGNM -001- 24 VFD 1,0 2,2 7,0(0111111) 6,NSEND
0016211 03 000003 000000 000001 -001- 25 ADDR 0(0000001)

-001- 27 # MICRO
-001- 28 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 29 # TO FIELD = SS,SXT FROM FIELD = MCHBKF
0016213 03 000005 020005 ----- CGNM -001- 30 VFD 1,0 2,1 7,0 6,NMICRO
0016214 03 000006 105631 ----- -001- 31 VFD 8,SS,SXT 8,MCHBKF

-001- 33 # MICRO
-001- 34 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 35 # MISCELLANEOUS CROSSPOINT ZBRX
0016215 03 000007 020005 ----- CGNM -001- 36 VFD 1,0 2,1 7,0 6,NMICRO
0016216 03 000010 025712 ----- -001- 37 VFD 16,ZBRX

0016217 39 # ZEROS AK REGISTER TO ALLOW MATCH
0016217 40 # ON ALL BITS
-001- 41 # MICRO
-001- 42 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 43 # TO FIELD = AKXT FROM FIELD = BRXF
0016217 03 000011 020005 ----- CGNM -001- 44 VFD 1,0 2,1 7,0 6,NMICRO
0016220 03 000012 116342 ----- -001- 45 VFD 8,AKXT 8,BRXF

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CGNTI ISSUE 04 PAGE 42

TEST 72 SEGMENT 1

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI

W77D

```

-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # MISCELLANEOUS CROSSPOINT SBRX
0016221 03 000013 020005 ----- CDGNI
0016222 03 000014 023712 ----- -001- 04 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 05 # VFD 16,SBRX

0016223 07 # LOOP 1 SETS SAR AND AI REGISTERS
0016223 08 # TO ALL ZEROS, LOOP 2 SETS SAR AND
0016223 09 # AI REGISTERS TO ALL ONES. THE
0016223 10 # ADMI BIT OF THE "IS" REGISTER IS
0016223 11 # TESTED FOR A RESET INDICATION WHICH
0016223 12 # INDICATES THAT NO MISMATCH OF THE
0016223 13 # SAR AND AI REGISTERS HAS BEEN
0016223 14 # DETECTED.

-001- 15 # LP_BEGIN
-001- 16 # BEGIN 2 LOOPS.
0016223 03 000015 000201 ----- CDGNI -001- 17 MSKO VFD 1,0 2,0 7,0(2) 6,NBEGIN

-001- 19 # MICRO
-001- 20 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 21 # MISCELLANEOUS CROSSPOINT SDRX
0016224 03 000016 020005 ----- CDGNI -001- 22 # VFD 1,0 2,1 7,0 6,NMICRO
0016225 03 000017 015471 ----- -001- 23 # VFD 16,SDRX

-001- 25 # SEND
-001- 26 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 27 # PARITY IS NORMAL.
0016226 03 000020 147706 ----- CDGNI -001- 28 # VFD 1,1 2,2 7,0(111111) 6,NSEND
0016227 03 000021 000000 000000 -001- 29 # ADDR 0(0000000) # LOOP 1
0016231 03 000023 000017 177777 -001- 30 # ADDR 0(3777777) # LOOP 2

-001- 32 # MICRO
-001- 33 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 34 # TO FIELD = SARXT FROM FIELD = MCHBFX
0016233 03 000025 020005 ----- CDGNI -001- 35 # VFD 1,0 2,1 7,0 6,NMICRO
0016234 03 000026 112631 ----- -001- 36 # VFD 8,SARXT 8,MCHBFX

-001- 38 # MICRO
-001- 39 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 40 # TO FIELD = AIXT FROM FIELD = MCHBFX
0016235 03 000027 020005 ----- CDGNI -001- 41 # VFD 1,0 2,1 7,0 6,NMICRO
0016236 03 000030 121631 ----- -001- 42 # VFD 8,AIXT 8,MCHBFX

-001- 44 # MICRO
-001- 45 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 46 # MISCELLANEOUS CROSSPOINT ZDRX
0016237 03 000031 020005 ----- CDGNI -001- 47 # VFD 1,0 2,1 7,0 6,NMICRO
0016240 03 000032 015472 ----- -001- 48 # VFD 16,ZDRX

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 43

TEST 72 SEGMENT 1

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W77D

```

0016241                                01                                # CLEAR IS - IF MATCH IS DETECTED
                                                INTERRUPT WILL BE SET

-001- 03 # MICRO
-001- 04 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 05 # TO FIELD = IS_RXT FROM FIELD = BRXF
0016241 03 000033 020005 ----- CDGNN -001- 06 VFD 1,0 2,1 7,0 6,NMICRO
0016242 03 000034 033342 ----- -001- 07 VFD 8,IS_RXT 8,BRXF

-001- 09 # MICRO
-001- 10 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 11 # TO FIELD = MCHBXT FROM FIELD = ISXF
0016243 03 000035 020005 ----- CDGNN -001- 12 VFD 1,0 2,1 7,0 6,NMICRO
0016244 03 000036 114613 ----- -001- 13 VFD 8,MCHBXT 8,ISXF

-001- 15 # RETRN
-001- 16 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0016245 03 000037 007710 ----- CDGNN -001- 17 VFD 1,0 2,0 7,B(01111111) 6,NRETRN

-001- 19 # COMPARE
-001- 20 # COMPARE ON-LINE MCHB BIT (S(ADMI)) TO 0.
-001- 21 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0016246 03 000040 020314 ----- CDGNN -001- 22 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(ADMI)) 6,NCOMPARE
0016247 03 000041 000000 ----- -001- 23 VFD 15,0 1,0

0016250                                25                                # SHOULD BE NO MATCH INDICATION SINCE
                                                MATCHER IS TRIGGERED ON DR=1

-001- 27 # FAILTST
-001- 28 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMDR.
0016250 03 000042 020017 ----- CDGNN -001- 29 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016251 03 000043 000001 ----- -001- 30 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
-001- 31 VFD 16,FLMDR

-001- 33 # MICRO
-001- 34 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 35 # MISCELLANEOUS CROSSPOINT SDRX
0016252 03 000044 020005 ----- CDGNN -001- 36 VFD 1,0 2,1 7,0 6,NMICRO
0016253 03 000045 015471 ----- -001- 37 VFD 16,SDRX

-001- 39 # MICRO
-001- 40 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 41 # TO FIELD = MCHBXT FROM FIELD = ISXF
0016254 03 000046 020005 ----- CDGNN -001- 42 VFD 1,0 2,1 7,0 6,NMICRO
0016255 03 000047 114613 ----- -001- 43 VFD 8,MCHBXT 8,ISXF

-001- 45 # RETRN
-001- 46 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0016256 03 000050 007710 ----- CDGNN -001- 47 VFD 1,0 2,0 7,B(01111111) 6,NRETRN

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 44

TEST 72 SEGMENT 1

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # COMPARE
-001- 02 # COMPARE ON-LINE MCHB BIT (S(ADMI)) TO 1.
-001- 03 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0016257 03 000051 020314 ----- CDGNM -001- 04 VFD 1,LPINDX 2,1 1,0 1,SUCCES 5,(S(ADMI)) 6,NCOMPARE
0016260 03 000052 000001 ----- -001- 05 VFD 15,0 1,1

-001- 07 # FAILTST
-001- 08 # FAILURE EXIT - SYMBOLIC TROUBLE NUMBER IS FLMD.
-001- 09 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016261 03 000053 020017 ----- CDGNM -001- 10 VFD 1,0 2,1 5,0 2,0 6,NFAILTST
0016262 03 000054 000002 ----- -001- 11 VFD 16,FLMD

-001- 13 # LP_END
-001- 14 # TERMINATE LOOP.
0016263 03 000055 040002 000000 CDGNM -001- 15 VFD 1,0 2,2 7,0 6,NLP_END
0016264 03 000056 000000 016223 0016223 -001- 16 ADDR LPSTART

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 45

TEST 72 SEGMENT 2

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 72 SEGMENT 2
-001- 04 # *
-001- 05 # *****

```

```

0016266 03 000060 000200 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,D(2) 6,NTESTSEG

```

```

11 # THE ABILITY OF THE ADDRESS MATCHER TO PICK UP A "SAR-AI"
12 # REGISTER MISMATCH IS TESTED. THE "SAR" REGISTER IS
13 # SET TO ALL ZEROS AND A "1" IS WALKED DOWN THE
14 # "AI" REGISTER. THE "AK" REGISTER IS SET TO ALL
15 # ZEROS TO ALLOW A "SAR-AI" MATCH TEST ON ALL BITS.
16 # THE "ADMI" BIT OF THE "IS" REGISTER IS TESTED
17 # FOR AN EXPECTED MISMATCH INDICATION.

```

```

-001- 19 # MICRO
-001- 20 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 21 # MISCELLANEOUS CROSSPOINT ZBRX
0016267 03 000061 020005 ----- CDGNM -001- 22 VFD 1,0 2,1 7,0 6,NMICRO
0016270 03 000062 025712 ----- -001- 23 VFD 16,ZBRX

```

```

-001- 25 # MICRO
-001- 26 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 27 # TO FIELD = SARXT FROM FIELD = BRXF
0016271 03 000063 020005 ----- CDGNM -001- 28 VFD 1,0 2,1 7,0 6,NMICRO
0016272 03 000064 112742 ----- -001- 29 VFD 8,SARXT 8,BRXF

```

```

-001- 31 # MICRO
-001- 32 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 33 # MISCELLANEOUS CROSSPOINT SBRX
0016273 03 000065 020005 ----- CDGNM -001- 34 VFD 1,0 2,1 7,0 6,NMICRO
0016274 03 000066 023712 ----- -001- 35 VFD 16,SBRX

```

```

0016275 37 # WALKS A ONE DOWN REGISTER
0016275 38 # "AI" AND TESTS THE ADMI BIT OF
0016275 39 # REGISTER "IS" FOR AN EXPECTED SET
0016275 40 # CONDITION. THE SET ADMI BIT
0016275 41 # INDICATES THAT THE EXPECTED MISMATCH
0016275 42 # OF THE SAR AND AI REGISTERS WAS
0016275 43 # DETECTED.

```

```

-001- 44 # LP_BEGIN
-001- 45 # BEGIN 20 LOOPS.
0016275 03 000067 002401 ----- CDGNM -001- 46 N0MTH VFD 1,0 2,0 7,D(20) 6,NBEGIN

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 46

TEST 72 SEGMENT 2

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W770

0016276

01

SETTING AND CLEARING THE "DR"
FLIP-FLOP TOGGLES THE MATCH ENABLE
LOGIC.0016276 03 000070 020005 ----- CDGNN
0016277 03 000071 015472 ------001- 04 # MICRO
-001- 05 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 06 # MISCELLANEOUS CROSSPOINT ZDRX
-001- 07 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 08 # VFD 16,ZDRX-001- 10 # SEND
-001- 11 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 12 # PARITY IS NORMAL.

0016300 03 000072 147706 ----- CDGNN

-001- 13 # VFD 1,1 2,2 7,B(0111111) 6,NSEND
-001- 14 # ADDR 0(0000001) # LOOP 1
-001- 15 # ADDR 0(0000002) # LOOP 2
-001- 16 # ADDR 0(0000004) # LOOP 3
-001- 17 # ADDR 0(0000010) # LOOP 4
-001- 18 # ADDR 0(0000020) # LOOP 5
-001- 19 # ADDR 0(0000040) # LOOP 6
-001- 20 # ADDR 0(0000100) # LOOP 7
-001- 21 # ADDR 0(0000200) # LOOP 8
-001- 22 # ADDR 0(0000400) # LOOP 9
-001- 23 # ADDR 0(0001000) # LOOP 10
-001- 24 # ADDR 0(0002000) # LOOP 11
-001- 25 # ADDR 0(0004000) # LOOP 12
-001- 26 # ADDR 0(0010000) # LOOP 13
-001- 27 # ADDR 0(0020000) # LOOP 14
-001- 28 # ADDR 0(0040000) # LOOP 15
-001- 29 # ADDR 0(0100000) # LOOP 16
-001- 30 # ADDR 0(0200000) # LOOP 17
-001- 31 # ADDR 0(0400000) # LOOP 18
-001- 32 # ADDR 0(1000000) # LOOP 19
-001- 33 # ADDR 0(2000000) # LOOP 200016301 03 000073 000000 000001
0016303 03 000075 000000 000002
0016305 03 000077 000000 000004
0016307 03 000101 000000 000010
0016311 03 000103 000000 000020
0016313 03 000105 000000 000040
0016315 03 000107 000000 000100
0016317 03 000111 000000 000200
0016321 03 000113 000000 000400
0016323 03 000115 000000 001000
0016325 03 000117 000000 002000
0016327 03 000121 000000 004000
0016331 03 000123 000000 010000
0016333 03 000125 000000 020000
0016335 03 000127 000000 040000
0016337 03 000131 000000 100000
0016341 03 000133 000001 000000
0016343 03 000135 000002 000000
0016345 03 000137 000004 000000
0016347 03 000141 000010 000000-001- 35 # MICRO
-001- 36 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 37 # TO FIELD = AIXT FROM FIELD = MCHBXF
-001- 38 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 39 # VFD 8,AIXT 8,MCHBXF0016351 03 000143 020005 ----- CDGNN
0016352 03 000144 121631 -----0016353
001635341 # MATCHER IS TRIGGERED ON DR=1
42 # CLEAR IS - IF MATCH IS DETECTED
INTERRUPT WILL BE SET0016353 03 000145 020005 ----- CDGNN
0016354 03 000146 033342 ------001- 44 # MICRO
-001- 45 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 46 # TO FIELD = IS_RAT FROM FIELD = BRXF
-001- 47 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 48 # VFD 8,IS_RAT 8,BRXF

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1c931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 47

TEST 72 SEGMENT 2

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W770

```

-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # MISCELLANEOUS CROSSPOINT SDRX
0016355 03 000147 020005 ----- CDGNTI
0016356 03 000150 015471 -----
-001- 04 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 05 # VFD 16,SDRX

-001- 07 # MICRO
-001- 08 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 09 # TO FIELD = MCHBXT FROM FIELD = ISXF
0016357 03 000151 020005 ----- CDGNTI
0016360 03 000152 114613 -----
-001- 10 # VFD 1,0 2,1 7,0 6,NMICRO
-001- 11 # VFD 8,MCHBXT 8,ISXF

-001- 13 # RETRN
-001- 14 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0016361 03 000153 007710 ----- CDGNTI
-001- 15 # VFD 1,0 2,0 7,0 6,NRETRN

-001- 17 # COMPARE
-001- 18 # COMPARE ON-LINE MCHB BIT ($ADMI) TO 0.
-001- 19 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0016362 03 000154 020314 ----- CDGNTI
0016363 03 000155 000000 -----
-001- 20 # VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,($ADMI) 6,NCOMPARE
-001- 21 # VFD 15,0 1,0

-001- 23 # FAILTST
-001- 24 # FAILURE EXIT
-001- 25 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016364 03 000156 120017 ----- CDGNTI
0016365 03 000157 000003 -----
0016366 03 000160 000004 -----
0016367 03 000161 000005 -----
0016370 03 000162 000006 -----
0016371 03 000163 000007 -----
0016372 03 000164 000010 -----
0016373 03 000165 000011 -----
0016374 03 000166 000012 -----
0016375 03 000167 000013 -----
0016376 03 000170 000014 -----
0016377 03 000171 000015 -----
0016400 03 000172 000016 -----
0016401 03 000173 000017 -----
0016402 03 000174 000020 -----
0016403 03 000175 000021 -----
0016404 03 000176 000022 -----
0016405 03 000177 000023 -----
0016406 03 000200 000024 -----
0016407 03 000201 000025 -----
0016410 03 000202 000026 -----
-001- 26 # VFD 1,1 2,1 5,0 2,0 6,NFAILTST
-001- 27 # VFD 16,FL0 # LOOP 1
-001- 28 # VFD 16,FL1 # LOOP 2
-001- 29 # VFD 16,FL2 # LOOP 3
-001- 30 # VFD 16,FL3 # LOOP 4
-001- 31 # VFD 16,FL4 # LOOP 5
-001- 32 # VFD 16,FL5 # LOOP 6
-001- 33 # VFD 16,FL6 # LOOP 7
-001- 34 # VFD 16,FL7 # LOOP 8
-001- 35 # VFD 16,FL8 # LOOP 9
-001- 36 # VFD 16,FL9 # LOOP 10
-001- 37 # VFD 16,FL10 # LOOP 11
-001- 38 # VFD 16,FL11 # LOOP 12
-001- 39 # VFD 16,FL12 # LOOP 13
-001- 40 # VFD 16,FL13 # LOOP 14
-001- 41 # VFD 16,FL14 # LOOP 15
-001- 42 # VFD 16,FL15 # LOOP 16
-001- 43 # VFD 16,FL16 # LOOP 17
-001- 44 # VFD 16,FL17 # LOOP 18
-001- 45 # VFD 16,FL18 # LOOP 19
-001- 46 # VFD 16,FL19 # LOOP 20

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 48

B08

TEST 72 SEGMENT 2

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W770

					-001- 01 #	LP_END	
					-001- 02 #	TERMINATE LOOP.	
0016411	03	000203	040002	000000	CDGNH		
0016412	03	000204	000000	016275	0016275	VFD	1,0 2,2 7,0 6,NLP_END
					-001- 04	ADDR	LPSTART

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 49

TEST 72 SEGMENT 3

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI

W770

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 72 SEGMENT 3
-001- 04 # *
-001- 05 # *****

```

```

0016414 03 000206 000300 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,0(3) 6,NTESTSEG

```

```

11 # THE ABILITY OF THE ADDRESS MATCHER TO PICK UP A "SAR-AI"
12 # REGISTER MISMATCH IS TESTED. THE "AI" REGISTER IS
13 # SET TO ALL ZEROS AND A "1" IS WALKED DOWN THE
14 # "SAR" REGISTER. THE "AK" REGISTER IS SET TO ALL
15 # ZEROS TO ALLOW A "SAR-AI" MATCH TEST ON ALL BITS.
16 # THE "ADMI" BIT OF THE "IS" REGISTER IS TESTED
17 # FOR AN EXPECTED MISMATCH INDICATION.

```

```

-001- 19 # MICRO
-001- 20 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 21 # MISCELLANEOUS CROSSPOINT SBRX
0016415 03 000207 020005 ----- CDGNM -001- 22 VFD 1,0 2,1 7,0 6,NMICRO
0016416 03 000210 025712 ----- CDGNM -001- 23 VFD 16,SBRX

```

```

-001- 25 # MICRO
-001- 26 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 27 # TO FIELD = AIXT FROM FIELD = BRXF
0016417 03 000211 020005 ----- CDGNM -001- 28 VFD 1,0 2,1 7,0 6,NMICRO
0016420 03 000212 121742 ----- CDGNM -001- 29 VFD 8,AIXT 8,BRFX

```

```

-001- 31 # MICRO
-001- 32 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 33 # MISCELLANEOUS CROSSPOINT SBRX
0016421 03 000213 020005 ----- CDGNM -001- 34 VFD 1,0 2,1 7,0 6,NMICRO
0016422 03 000214 023712 ----- CDGNM -001- 35 VFD 16,SBRX

```

```

0016423 37 # WALKS A ONE DOWN REGISTER SAR
0016423 38 # AND TESTS THE "ADMI" BIT OF REGISTER
0016423 39 # "IS" FOR AN EXPECTED RESET CONDITION.
0016423 40 # THE RESET ADMI BIT INDICATES THAT THE
0016423 41 # EXPECTED MISMATCH OF THE SAR AND AI
0016423 42 # REGISTERS WAS DETECTED.

```

```

-001- 43 # LP_BEGIN
-001- 44 # BEGIN 20 LOOPS.
0016423 03 000215 002401 ----- CDGNM -001- 45 NONCH VFD 1,0 2,0 7,0(20) 6,NBEGIN

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 50

TEST 72 SEGMENT 3

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGN TI W77D

0016424

01

SETTING AND CLEARING THE "DR"
FLIP-FLOP TOGGLES THE MATCH ENABLE
LOGIC.

```

-001- 04 # MICRO
-001- 05 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 06 # MISCELLANEOUS CROSSPOINT ZDRX
0016424 03 000216 020005 ----- CDGNM
0016425 03 000217 015472 -----
-001- 07 VFD 1,0 2,1 7,0 6,NMICRO
-001- 08 VFD 16,ZDRX

```

```

-001- 10 # SEND
-001- 11 # SEND CONSTANTS TO OFF-LINE MCHB.
-001- 12 # PARITY IS NORMAL.
0016426 03 000220 147704 ----- CDGNM
0016427 03 000221 000000 000001
0016431 03 000223 000000 000002
0016433 03 000225 000000 000004
0016435 03 000227 000000 000010
0016437 03 000231 000000 000020
0016441 03 000233 000000 000040
0016443 03 000235 000000 000100
0016445 03 000237 000000 000200
0016447 03 000241 000000 000400
0016451 03 000243 000000 001000
0016453 03 000245 000000 002000
0016455 03 000247 000000 004000
0016457 03 000251 000000 010000
0016461 03 000253 000000 020000
0016463 03 000255 000000 040000
0016465 03 000257 000000 100000
0016467 03 000261 000001 000000
0016471 03 000263 000002 000000
0016473 03 000265 000004 000000
0016475 03 000267 000010 000000
-001- 13 VFD 1,1 2,2 7,B(0111111) 6,NSEND
-001- 14 ADDR 0(0000001) # LOOP 1
-001- 15 ADDR 0(0000002) # LOOP 2
-001- 16 ADDR 0(0000004) # LOOP 3
-001- 17 ADDR 0(0000010) # LOOP 4
-001- 18 ADDR 0(0000020) # LOOP 5
-001- 19 ADDR 0(0000040) # LOOP 6
-001- 20 ADDR 0(0000100) # LOOP 7
-001- 21 ADDR 0(0000200) # LOOP 8
-001- 22 ADDR 0(0000400) # LOOP 9
-001- 23 ADDR 0(0001000) # LOOP 10
-001- 24 ADDR 0(0002000) # LOOP 11
-001- 25 ADDR 0(0004000) # LOOP 12
-001- 26 ADDR 0(0010000) # LOOP 13
-001- 27 ADDR 0(0020000) # LOOP 14
-001- 28 ADDR 0(0040000) # LOOP 15
-001- 29 ADDR 0(0100000) # LOOP 16
-001- 30 ADDR 0(0200000) # LOOP 17
-001- 31 ADDR 0(0400000) # LOOP 18
-001- 32 ADDR 0(1000000) # LOOP 19
-001- 33 ADDR 0(2000000) # LOOP 20

```

```

-001- 35 # MICRO
-001- 36 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 37 # TO FIELD = SART FROM FIELD = MCHBFX
0016477 03 000271 020005 ----- CDGNM
0016500 03 000272 112631 -----
-001- 38 VFD 1,0 2,1 7,0 6,NMICRO
-001- 39 VFD 8,SART 8,MCHBFX

```

```

0016501
0016501
41
42
# MATCHER IS TRIGGERED ON DR=1
# CLEAR IS - IF MATCH IS DETECTED
# INTERRUPT WILL BE SET

```

```

-001- 44 # MICRO
-001- 45 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 46 # TO FIELD = IS_RXT FROM FIELD = BRXF
0016501 03 000273 020005 ----- CDGNM
0016502 03 000274 033342 -----
-001- 47 VFD 1,0 2,1 7,0 6,NMICRO
-001- 48 VFD 8,IS_RXT 8,BRXF

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGN TI ISSUE 04 PAGE 51

TEST 72 SEGMENT 3

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

COGNITI

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```

-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # MISCELLANEOUS CROSSPOINT SDRX
0016503 03 000275 020005 ----- COGNM -001- 04 # VFD 1,0 2,1 7,0 6,NMICRO
0016504 03 000276 015471 ----- -001- 05 # VFD 16,SDRX

-001- 07 # MICRO
-001- 08 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 09 # TO FIELD = MCHBXT FROM FIELD = ISXF
0016505 03 000277 020005 ----- COGNM -001- 10 # VFD 1,0 2,1 7,0 6,NMICRO
0016506 03 000300 114613 ----- -001- 11 # VFD 8,MCHBXT 8,ISXF

-001- 13 # RETRN
-001- 14 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0016507 03 000301 007710 ----- COGNM -001- 15 # VFD 1,0 2,0 7,8(01111111) 6,NRETRN

-001- 17 # COMPARE
-001- 18 # COMPARE ON-LINE MCHB BIT (S(ADMI)) TO 0.
-001- 19 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0016510 03 000302 020314 ----- COGNM -001- 20 # VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(ADMI)) 6,NCOMPARE
0016511 03 000303 000000 ----- -001- 21 # VFD 15,0 1,0

-001- 23 # FAILTST
-001- 24 # FAILURE EXIT
-001- 25 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016512 03 000304 120017 ----- COGNM -001- 26 # VFD 1,1 2,1 5,0 2,0 6,NFAILTST
0016513 03 000305 000027 ----- -001- 27 # VFD 16,FA0 # LOOP 1
0016514 03 000306 000030 ----- -001- 28 # VFD 16,FA1 # LOOP 2
0016515 03 000307 000031 ----- -001- 29 # VFD 16,FA2 # LOOP 3
0016516 03 000310 000032 ----- -001- 30 # VFD 16,FA3 # LOOP 4
0016517 03 000311 000033 ----- -001- 31 # VFD 16,FA4 # LOOP 5
0016520 03 000312 000034 ----- -001- 32 # VFD 16,FA5 # LOOP 6
0016521 03 000313 000035 ----- -001- 33 # VFD 16,FA6 # LOOP 7
0016522 03 000314 000036 ----- -001- 34 # VFD 16,FA7 # LOOP 8
0016523 03 000315 000037 ----- -001- 35 # VFD 16,FA8 # LOOP 9
0016524 03 000316 000040 ----- -001- 36 # VFD 16,FA9 # LOOP 10
0016525 03 000317 000041 ----- -001- 37 # VFD 16,FA10 # LOOP 11
0016526 03 000320 000042 ----- -001- 38 # VFD 16,FA11 # LOOP 12
0016527 03 000321 000043 ----- -001- 39 # VFD 16,FA12 # LOOP 13
0016530 03 000322 000044 ----- -001- 40 # VFD 16,FA13 # LOOP 14
0016531 03 000323 000045 ----- -001- 41 # VFD 16,FA14 # LOOP 15
0016532 03 000324 000046 ----- -001- 42 # VFD 16,FA15 # LOOP 16
0016533 03 000325 000047 ----- -001- 43 # VFD 16,FA16 # LOOP 17
0016534 03 000326 000050 ----- -001- 44 # VFD 16,FA17 # LOOP 18
0016535 03 000327 000051 ----- -001- 45 # VFD 16,FA18 # LOOP 19
0016536 03 000330 000052 ----- -001- 46 # VFD 16,FA19 # LOOP 20

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET COGNITI ISSUE 04 PAGE 52

TEST 72 SEGMENT 3

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

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						-001- 01 #	LP_END	
						-001- 02 #	TERMINATE LOOP.	
0016537	03	000331	040002	000000	CD6NM	-001- 03	VFD	1,0 2,2 7,0 6,HLP_END
0016540	03	000332	000000	016423	0016423	-001- 04	ADDR	LPSTART

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET

CDGNTI

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PAGE 53

TEST 72 SEGMENT 4

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI

W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 72 SEGMENT 4
-001- 04 # *
-001- 05 # *****

```

```

0016542 03 000334 000400 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,0(4) 6,NTESTSEG

```

```

11 # THE ABILITY OF THE "AK" REGISTER TO MASK ON EVERY BIT
12 # IS TESTED. THE "AK" AND "SAR" REGISTERS ARE SET TO
13 # ALL ONES FOR THIS TEST. ALL BITS OF THE "AI" REGISTER
14 # ARE SET TO ONES EXCEPT THE BIT LOCATION BEING TESTED
15 # WHICH IS SET TO A "0". THE "0" IS WALKED THRU
16 # EVERY BIT LOCATION OF THE "AI" REGISTER AND A
17 # SAR-AI COMPARE TEST IS PERFORMED. SINCE THE
18 # "AK" IS SET TO ALL ONES THE SAR-AI MISMATCHES
19 # SHOULD NOT BE DETECTED. THE "ADM1" BIT OF THE "IS"
20 # REGISTER IS TESTED FOR AN EXPECTED MATCH INDICATION.

```

```

-001- 22 # SEND
-001- 23 # SEND 0(3777777) TO OFF-LINE MCHB.
-001- 24 # PARITY IS NORMAL.
0016543 03 000335 047706 ----- CDGNM -001- 25 VFD 1,0 2,2 7,0(111111) 6,NSEND
0016544 03 000336 000017 177777 -001- 26 ADDR 0(3777777)

```

```

-001- 28 # MICRO
-001- 29 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 30 # TO FIELD = AKXT FROM FIELD = MCHBFX
0016546 03 000340 020005 ----- CDGNM -001- 31 VFD 1,0 2,1 7,0 6,NMICRO
0016547 03 000341 116231 ----- -001- 32 VFD 8,AKXT 8,MCHBFX

```

```

-001- 34 # MICRO
-001- 35 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 36 # TO FIELD = SARXT FROM FIELD = MCHBFX
0016550 03 000342 020005 ----- CDGNM -001- 37 VFD 1,0 2,1 7,0 6,NMICRO
0016551 03 000343 116231 ----- -001- 38 VFD 8,SARXT 8,MCHBFX

```

```

-001- 40 # MICRO
-001- 41 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0016552 03 000344 020005 ----- CDGNM -001- 42 # MISCELLANEOUS CROSSPOINT SBRX
-001- 43 VFD 1,0 2,1 7,0 8,NMICRO
0016553 03 000345 023712 ----- -001- 44 VFD 16,SBRX

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 54

TEST 72 SEGMENT 4

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W77D

```

0016554      01      #   SETS "AI" REGISTER EQUAL TO
0016554      02      #   ALL ONES AND WALKS A ZERO THRU EACH
0016554      03      #   BIT POSITION. SINCE THE MASK
0016554      04      #   REGISTER AK IS SET TO ALL ONES THE
0016554      05      #   MISMATCH OF THE AI AND SAR REGISTERS
0016554      06      #   SHOULD NOT BE DETECTED. THE "IS"
0016554      07      #   REGISTERS "ADMI" BIT SHOULD BE IN
0016554      08      #   THE RESET STATE.
-001- 09 #   LP_BEGIN
-001- 10 #   BEGIN 20 LOOPS.
0016554 03 000346 002401 ----- CDGNI      -001- 11 MSK1   VFD      1,0 2,0 7,0(20) 6,NBEGIN
0016555      13      #   SETTING AND CLEARING THE "DR"
                                #   FLIP-FLOP TOGGLES THE MATCH ENABLE
                                #   LOGIC.
-001- 16 #   MICRO
-001- 17 #   PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 18 #   MISCELLANEOUS CROSSPOINT ZDRX
0016555 03 000347 020005 ----- CDGNI      -001- 19      VFD      1,0 2,1 7,0 6,NMICRO
0016556 03 000350 015472 ----- -001- 20      VFD      16,ZDRX

-001- 22 #   SEND
-001- 23 #   SEND CONSTANTS TO OFF-LINE MCHB.
-001- 24 #   PARITY IS NORMAL.
0016557 03 000351 147706 ----- CDGNI      -001- 25      VFD      1,1 2,2 7,0(0111111) 6,NSEND
0016560 03 000352 000017 177776 -001- 26      ADDR      0(3777776)      #   LOOP 1
0016562 03 000354 000017 177775 -001- 27      ADDR      0(3777775)      #   LOOP 2
0016564 03 000356 000017 177773 -001- 28      ADDR      0(3777773)      #   LOOP 3
0016566 03 000360 000017 177767 -001- 29      ADDR      0(3777767)      #   LOOP 4
0016570 03 000362 000017 177757 -001- 30      ADDR      0(3777757)      #   LOOP 5
0016572 03 000364 000017 177737 -001- 31      ADDR      0(3777737)      #   LOOP 6
0016574 03 000366 000017 177677 -001- 32      ADDR      0(3777677)      #   LOOP 7
0016576 03 000370 000017 177577 -001- 33      ADDR      0(3777577)      #   LOOP 8
0016600 03 000372 000017 177377 -001- 34      ADDR      0(3777377)      #   LOOP 9
0016602 03 000374 000017 176777 -001- 35      ADDR      0(3776777)      #   LOOP 10
0016604 03 000376 000017 175777 -001- 36      ADDR      0(3775777)      #   LOOP 11
0016606 03 000400 000017 173777 -001- 37      ADDR      0(3773777)      #   LOOP 12
0016610 03 000402 000017 167777 -001- 38      ADDR      0(3767777)      #   LOOP 13
0016612 03 000404 000017 157777 -001- 39      ADDR      0(3757777)      #   LOOP 14
0016614 03 000406 000017 137777 -001- 40      ADDR      0(3737777)      #   LOOP 15
0016616 03 000410 000017 077777 -001- 41      ADDR      0(3677777)      #   LOOP 16
0016620 03 000412 000016 177777 -001- 42      ADDR      0(3577777)      #   LOOP 17
0016622 03 000414 000015 177777 -001- 43      ADDR      0(3377777)      #   LOOP 18
0016624 03 000416 000013 177777 -001- 44      ADDR      0(2777777)      #   LOOP 19
0016626 03 000420 000007 177777 -001- 45      ADDR      0(1777777)      #   LOOP 20

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 55

TEST 72 SEGMENT 4

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNMI W770

```

-001- 01 # MICRO
-001- 02 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 03 # TO FIELD = AIXT FROM FIELD = MCHBXF
0016630 03 000422 020005 ----- CDGNM -001- 04 VFD 1,0 2,1 7,0 6,NMICRO
0016631 03 000423 121631 ----- -001- 05 VFD 8,AIXT 8,MCHBXF

0016632 07 # WATCHER IS TRIGGERED ON DR=1
0016632 08 # CLEAR IS - IF WATCH IS DETECTED
# INTERRUPT WILL BE SET

-001- 10 # MICRO
-001- 11 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
0016632 03 000424 020005 ----- CDGNM -001- 12 TO FIELD = IS_RXT FROM FIELD = BRXF
0016633 03 000425 033342 ----- -001- 13 VFD 1,0 2,1 7,0 6,NMICRO
-001- 14 VFD 8,IS_RXT 8,BRXF

-001- 16 # MICRO
-001- 17 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 18 # MISCELLANEOUS CROSSPOINT SDRX
0016634 03 000426 020005 ----- CDGNM -001- 19 VFD 1,0 2,1 7,0 6,NMICRO
0016635 03 000427 015471 ----- -001- 20 VFD 16,SDRX

-001- 22 # MICRO
-001- 23 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 24 # TO FIELD = MCHBXT FROM FIELD = ISXF
0016636 03 000430 020005 ----- CDGNM -001- 25 VFD 1,0 2,1 7,0 6,NMICRO
0016637 03 000431 114613 ----- -001- 26 VFD 8,MCHBXT 8,ISXF

-001- 28 # RETRM
-001- 29 # RETURN OFF-LINE MCHB TO ON-LINE MCHB.
0016640 03 000432 007710 ----- CDGNM -001- 30 VFD 1,0 2,0 7,B(0111111) 6,NRETRN

-001- 32 # COMPARE
-001- 33 # COMPARE ON-LINE MCHB BIT (S(ADMI)) TO 1.
-001- 34 # IF COMPARISON EXISTS, SKIP NEXT TABLE ENTRY.
0016641 03 000433 020314 ----- CDGNM -001- 35 VFD 1,LPINDX 2,1 1,0 1,SUCCESS 5,(S(ADMI)) 6,NCOMPARE
0016642 03 000434 000001 ----- -001- 36 VFD 15,0 1,1

-001- 38 # FAILTST
-001- 39 # FAILURE EXIT
-001- 40 # DATA WORD IN FAILURE MESSAGE IS ON-LINE MCHB.
0016643 03 000435 120017 ----- CDGNM -001- 41 VFD 1,1 2,1 5,0 2,0 6,NFAILTST
0016644 03 000436 000053 ----- -001- 42 VFD 16,FL0M # LOOP 1
0016645 03 000437 000054 ----- -001- 43 VFD 16,FL1M # LOOP 2
0016646 03 000440 000055 ----- -001- 44 VFD 16,FL2M # LOOP 3
0016647 03 000441 000056 ----- -001- 45 VFD 16,FL3M # LOOP 4
0016650 03 000442 000057 ----- -001- 46 VFD 16,FL4M # LOOP 5
0016651 03 000443 000060 ----- -001- 47 VFD 16,FL5M # LOOP 6
0016652 03 000444 000061 ----- -001- 48 VFD 16,FL6M # LOOP 7
0016653 03 000445 000062 ----- -001- 49 VFD 16,FL7M # LOOP 8

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNMI ISSUE 04 PAGE 56

TEST 72 SEGMENT 4

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI W77D

```

0016654 03 000446 000063 ----- -001- 01 VFD 16,FL8M # LOOP 9
0016655 03 000447 000064 ----- -001- 02 VFD 16,FL9M # LOOP 10
0016656 03 000450 000065 ----- -001- 03 VFD 16,FL10M # LOOP 11
0016657 03 000451 000066 ----- -001- 04 VFD 16,FL11M # LOOP 12
0016660 03 000452 000067 ----- -001- 05 VFD 16,FL12M # LOOP 13
0016661 03 000453 000070 ----- -001- 06 VFD 16,FL13M # LOOP 14
0016662 03 000454 000071 ----- -001- 07 VFD 16,FL14M # LOOP 15
0016663 03 000455 000072 ----- -001- 08 VFD 16,FL15M # LOOP 16
0016664 03 000456 000073 ----- -001- 09 VFD 16,FL16M # LOOP 17
0016665 03 000457 000074 ----- -001- 10 VFD 16,FL17M # LOOP 18
0016666 03 000460 000075 ----- -001- 11 VFD 16,FL18M # LOOP 19
0016667 03 000461 000076 ----- -001- 12 VFD 16,FL19M # LOOP 20

-001- 14 # LP_END
-001- 15 # TERMINATE LOOP.
0016670 03 000462 040002 000000 CD6NM -001- 16 VFD 1,0 2,2 7,0 6,NLP_END
0016671 03 000463 000000 016554 001655A -001- 17 ADDR LPSTART

-001- 19 # PASSTST
-001- 20 # GO TO DIAGNOSTIC MONITOR PASS BRANCH.
0016673 03 000465 000021 ----- CD6NM -001- 21 VFD 1,0 2,0 7,0 6,NPASSTST

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 57

TEST 72 SEGMENT 4

23:13:53 2/05/81 ****

ADDRESS_MATCHER DIAGNOSTIC TEST

CDGNTI

M77D

O1 # LINKAGE TO OFF-LINE CODE
O2 CDGNOF EXTERN SEG1

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 58

TEST 73

23:13:53 2/05/81 ****

DATA_MATCHER DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 73, DATA_MATCHER
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0017147

-001- 10 CDTMTCN CSECT

-001- 13 # THIS TEST USES OFF-LINE CODE AT CSECTS ODTMTCN AND ODGOFSUB

```

0017147 04 000000 014545 004420 CDGNM -001- 17 VFD 1,0 2,0 2,3 2,0 3,5 6,NBGN
0017150 04 000001 004420 016674 EXTERN -001- 18 ADDR ODTMTCN,XDTMTCN
0017152 04 000003 000640 017115 EXTERN -001- 19 ADDR ODGOFSUB,XDGOFSUB

```

```

23 # ALL SEGMENTS OF THIS TEST ARE RUN BY THE OFF-LINE PROCESSOR
25 # SEGMENT 1
26 # THE DATA MATCHER CIRCUIT WHICH MATCHES THE DI REGISTER
27 # WITH THE DATA ON THE STORE BUS IS TESTED FOR MATCH
28 # CONDITIONS WITH ALL ONES AND ALL ZEROS. THE "ADM" INTERRUPT
29 # BIT SHOULD BE SET IN EACH CASE
31 # SEGMENT 2
32 # A MISMATCH ON A SINGLE BIT IS TRIED WITH A '0' ON THE STORE
33 # BUS AND A '1' IN THE DI. THIS IS REPEATED FOR EACH BIT.
34 # A MISMATCH ON A SINGLE BIT IS TRIED WITH A '1' ON THE STORE
35 # BUS AND A '0' IN THE DI. THIS IS REPEATED FOR EACH BIT.
37 # SEGMENT 3
38 # THE ABILITY TO MASK A MATCH ON DATA WITH THE DK
39 # REGISTER IS TESTED. THE STORE BUS AND DK CONTAIN ALL ONES
40 # AND THE DI CONTAINS A SINGLE '0'. THE '1' IN THE DK SHOULD
41 # MASK THE MISMATCH
43 # SEGMENT 4
44 # THE "DME" BIT IN THE SS IS TESTED. WHEN IT IS CLEARED,
45 # MATCHING SHOULD BE INHIBITED.

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 59

TEST 73 SEGMENT 1

23:13:53 2/05/81 ****

DATA_MATCHER DIAGNOSTIC TEST

CDGNTI

W770

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 73 SEGMENT 1
-001- 04 # *
-001- 05 # *****

```

```

0017154 04 000005 000100 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,0(1) 6,NTESTSEG

```

```

11 # ALL SEGMENTS OF THIS TEST ARE RUN BY THE OFF-LINE PROCESSOR
12 # SEE PROGRAM CDGNOF

```

```

-001- 19 # ADD_OFF
-001- 20 # START OFF-LINE PROCESSOR AT ADDRESS SEG1.
0017155 04 000006 040022 000000 CDGNM -001- 21 VFD 1,0 2,2 7,0 6,NADD_OFF
0017156 04 000007 000000 016674 CDGNOF -001- 22 ADDR SEG1

```

```

-001- 24 # CALLPROS
-001- 25 # RETURN TO CALL PROCESSING FOR 4 25 MS. INTERVALS.
-001- 26 # DIAGNOSTIC WILL COMPLETE IN OFF-LINE CU.
0017160 04 000011 020104 ----- CDGNM -001- 27 # *** NOTE *** THIS TERMINATES TABLE ENTRIES.
0017161 04 000012 000004 ----- -001- 28 VFD 1,0 2,1 6,0 1,1 6,NPROS
-001- 29 VFD 16,A

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 60

TEST 73 SEGMENT 1

23:13:53 2/05/81 ****

DATA_MATCHER DIAGNOSTIC TEST

CDGNTI W77D

01 CDGNOF EXTERN SEGMENT1

ENTRY POINTS FOR OFF_LINE CODE

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 61

TEST 74

23:13:53 2/05/81 ****

I/O DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # *****
-001- 02 # *****
-001- 03 # **
-001- 04 # ** CU DIAGNOSTIC TEST NO. 74, I/O
-001- 05 # **
-001- 06 # *****
-001- 07 # *****

```

0020173

-001- 10 CIO CSECT

-001- 13 # THIS TEST USES OFF-LINE CODE AT CSECTS OIO AND ODG0FSUB

```

0020173 05 000000 014545 020220 CDGWH -001- 17 VFD 1,0 2,0 2,3 2,0 3,5 6,NBGN
0020174 05 000001 020220 017162 EXTERN -001- 18 ADDR OIO,XIO
0020176 05 000003 000640 017115 EXTERN -001- 19 ADDR ODG0FSUB,XD60FSUB

```

```

23 # SEGMENT 1
24 # TEST FOR MULTIPLE MAIN CHANNEL SELECTION. SELECT EACH CHANNEL, ONE AT
25 # A TIME. THIS SHOULD NOT SET ERROR BIT. THEN TRY ALL ZEROS AND AN ILLEGAL
26 # CODE WHICH SELECTS MULTIPLE CHANNELS. THESE CASES SHOULD SET ERROR BIT.

```

```

28 # SEGMENT 2
29 # A SERIES OF OPERATIONS ARE TRIED ON ALL EQUIPED I/O CHANNELS. THEY ARE:
30 # SELECT ALL SUB-CHANNELS AND TRY ILLEGAL SUB-CHANNEL SELECT CODES
31 # TRY 3/6 CODES IN THE IOS CONTROL FIELD
32 # LOAD IOB WITH TEST CONSTANTS
33 # RETURN IOB TO R11
34 # LOAD IOS VIA "MD2CHT", "MD1CHTN", "MD3CHC", AND "MD0IDCH" CROSSPOINTS.
35 # RETURN IOS TO R11

```

```

37 # SEGMENT 3
38 # A SERIES OF TESTS ARE TRIED TO MAKE SURE THAT ONE I/O CHANNEL CAN
39 # NOT AFFECT ANOTHER. THE FOLLOWING OPERATIONS ARE TESTED.
40 # LOAD IOB FROM R10
41 # UNLOAD IOB INTO R11
42 # LOAD IOS WITH VARIOUS CROSSPOINTS
43 # UNLOAD IOS INTO R11

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI - ISSUE 04 PAGE 62

TEST 74

23:13:53 2/05/81 ****

I/O DIAGNOSTIC TEST

CDGNTI

W770

01 TDATA EXTERN EQIOCHAN
02 TDATA EXTERN NUMSTCHN

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 63

TEST 74 SEGMENT 1

23:13:53 2/05/81 ****

I/O DIAGNOSTIC TEST

CDGNTI W77D

```

-001- 01 # *****
-001- 02 # *
-001- 03 # * TEST 74 SEGMENT 1
-001- 04 # *
-001- 05 # *****

0020200 05 000005 000100 ----- CDGNM -001- 08 VFD 1,0 2,0 2,0 5,0(1) 6,NTESTSEG

11 # THIS DIAGNOSTIC RUNS IN THE OFF-LINE MACHINE
12 # SEE PROGRAM CDGNOF

-001- 14 # SEND
-001- 15 # SEND 0(0000001) TO OFF-LINE MCHB.
-001- 16 # PARITY IS NORMAL.
0020201 05 000006 047706 ----- CDGNM -001- 17 VFD 1,0 2,2 7,B(0111111) 6,NSEND
0020202 05 000007 000000 000001 -001- 18 ADDR 0(0000001)

-001- 20 # MICRO
-001- 21 # PERFORM MICRO INSTRUCTION IN OFF-LINE CU.
-001- 22 # TO FIELD = MSXT FROM FIELD = MCHBKF
0020204 05 000011 020005 ----- CDGNM -001- 23 VFD 1,0 2,1 7,0 6,NMICRO
0020205 05 000012 104631 ----- -001- 24 VFD 8,MSXT 8,MCHBKF

0020206 26 # OVERRIDE LOCK OFF LINE WITH MAINTENAN
CE STATE. THE LOCK OFF LINE SIGNAL IS
PROVIDED BY THE SYSTEM STATUS PANEL AND
IF IT IS PRESENT, ALL I/O CHANNELS WOULD
BE INHIBITED.

-001- 32 # ADD OFF
-001- 33 # START OFF-LINE PROCESSOR AT ADDRESS SEGMENT1.
0020206 05 000013 040022 000000 CDGNM -001- 34 VFD 1,0 2,2 7,0 6,NADD_OFF
0020207 05 000014 000000 017162 CDGNOF -001- 35 ADDR SEGMENT1

-001- 37 # CALLPROS
-001- 38 # RETURN TO CALL PROCESSING FOR A 25 MS. INTERVALS.
-001- 39 # DIAGNOSTIC WILL COMPLETE IN OFF-LINE CU.
-001- 40 # *** NOTE *** THIS TERMINATES TABLE ENTRIES.
0020211 05 000016 020104 ----- CDGNM -001- 41 VFD 1,0 2,1 6,0 1,1 6,NPROS
0020212 05 000017 000004 ----- -001- 42 VFD 16,4

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, I/O TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 64

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

I/O DIAGNOSTIC TEST

CDGNTI

W77D

0020212

```

-001- 03 #& TBL 7001
-001- 04 #& TEST 70
-001- 05 #& SEGMENT 1
-001- 06 #& PR CDGNTI
-001- 07 #
08 # GATING INTO THE TIMING COUNTER/PROGRAM TIMER FROM
09 # THE BR HAS NOT WORKED PROPERLY
10 #
11 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
12 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18
13 # DECODING OF "SBTC" AND "BRXTI" CROSSPOINTS
14 # PROC 06-27 FA1012 DMLO BITS 00-07
15 # BR(0-7)
16 # PROC 06-25 FA1012 DMLO BITS 08-15
17 # BR(8-15)
18 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

```

0020212

```

-001- 21 #& TBL 7002
-001- 22 #& TEST 70
-001- 23 #& SEGMENT 2
-001- 24 #& PR CDGNTI
-001- 25 #
26 # THE PRESCALER ON THE PROGRAM TIMER/TIMING COUNTER BOARD HAS
27 # NOT COUNTED PROPERLY.
28 #
29 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
30 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18
31 # DECODING OF "INCP" CROSSPOINT

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, I/O TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 65

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7003 FLT1125

CDGNTI W77D

0020212

-001- 01 ## TBL 7003
 -001- 02 ## TEST 70
 -001- 03 ## SEGMENT 3
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # THE TIMING COUNTER HAS NOT INCREMENTED PROPERLY AT 1.25 MS
 07
 08 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER

0020212

-001- 11 ## TBL 7004
 -001- 12 ## TEST 70
 -001- 13 ## SEGMENT 4
 -001- 14 ## PR CDGNTI
 -001- 15 #
 16 # THE PROGRAM TIMER OR TIMING COUNTER IS NOT COUNTING
 17 # PROPERLY.
 18
 19 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
 20 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18
 21 # DECODING OF "INCTC" CROSSPOINT

0020212

-001- 24 ## TBL 7005
 -001- 25 ## TEST 70
 -001- 26 ## SEGMENT 5
 -001- 27 ## PR CDGNTI
 -001- 28 #
 29 # THE MAINTENANCE CHANNEL ORDER TO ZERO THE PROGRAM TIMER
 30 # HAS NOT FUNCTIONED PROPERLY
 31
 32 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 66

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7006 FLZPT

CDGNTI

W770

0020212

```

-001- 01 #% TBL 7006
-001- 02 #% TEST 70
-001- 03 #% SEGMENT 5
-001- 04 #% PR CDGNTI
-001- 05 #
06 # THE "ZPT" MISCELLANEOUS CROSSPOINT HAS FAILED.
07
08 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
09 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19
10 # DECODING OF "ZPT" CROSSPOINT

```

0020212

```

-001- 13 #% TBL 7007
-001- 14 #% TEST 70
-001- 15 #% SEGMENT 6
-001- 16 #% PR CDGNTI
-001- 17 #
18 # THE BACKUP TO THE TIMING COUNTER HAS FAILED TO CLEAR
19 # BTC BIT IN THE SS
20
21 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
22 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
23 # BTC BIT
24 # PROC 06-31 FA1025 SYSTEM CLOCK
25 # PROC 02-27 FA1037 MAINTENANCE CHANNEL CONTROL
26 # PROC 02-26 FC202 MAINTENANCE CHANNEL DISCRETE COMPONENTS
27 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9
28 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10
29 # NOTE--3 DMA 02-19 FC385 DMA ADD ONE CIRCUIT
30 # NOTE--3 DMA 02-26 FC387 DMA CONTROL CIRCUIT
31 # NOTE--3 DMA 02-04 FB6 FUSE BOARD-STORE CONTROL
32 # NOTE--3 DMA 02-21 FC390 DMA STATUS BOARD 1
33 # MASCM 08-02 FA1060 MAIN STORE CONTROLLER - BITS 0 & 8
34 # MASCM 08-07 FA1060 MAIN STORE CONTROLLER - BITS 5 & 13
35 # MASCM 08-08 FA1060 MAIN STORE CONTROLLER - BITS 6 & 14
36 # PROC 06-35 FA1021 MICRO CONTROL 6

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 67

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7006 FLTICK

CDGNTI W77D

0020212

```

-001- 01 #8 TBL 7008
-001- 02 #8 TEST 70
-001- 03 #8 SEGMENT 6
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE TIMING COUNTER AND PROGRAM TIMER COUNT PROPERLY
07 # WHEN INCREMENTED BY A CROSSPOINT BUT WILL NOT RUN WITH
08 # THE CLOCK
09 #
10 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
11 # PROC 06-31 FA1025 SYSTEM CLOCK
12 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
13 # BTC IN SS MAY BE STUCK ACTIVE
14 # NOTE--3 CTI 02-06 FA1213 CTI BOARD 3
15 # PROC 10-23 FA1027 ERROR REG/DISPLAY BUFFER LOW BITS
16 # MASCH 08-22 FA1063 MAIN STORE CONTROLLER - I/O ORDER RECEIVER
17 # PROC 02-21 FA1029 MAIN STORE CONTROL 0
18 # PROC 02-22 FA1029 MAIN STORE CONTROL 1

```

0020212

```

-001- 21 #8 TBL 7009
-001- 22 #8 TEST 70
-001- 23 #8 SEGMENT 5
-001- 24 #8 PR CDGNTI
-001- 25 #
26 # THE MISCELLANEOUS CROSSPOINT "BRXPT" HAS FAILED TO LOAD THE THE
27 # "PT" WHILE NOT EFFECTING THE REST OF THE "TI".
28 #
29 # PROC 02-24 FA1033 PROGRAM TIMER/TIMING COUNTER
30 # PROC 02-23 FA1046 DOUBLE STORE READ
31 # THE "BRXPT" CROSSPOINT IS DECODED ON THIS PACK

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 68

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7101 FLIP00

CDGNTI W77D

0020212

```

-001- 01 #8 TBL 7101
-001- 02 #8 TEST 71
-001- 03 #8 SEGMENT 1
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
07 # WHEN AN INTERRUPT WAS PRESENT.
08 # THE INTERRUPT WAS IN BIT 0 OF THE "IS" REGISTER
09 #
10 # PROC 06-35 FA1021 MICRO CONTROL 6
11 # DS FLOP
12 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
13 # BIN FLOP
14 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD
15 # INTERRUPT PRESENT CIRCUITRY
16 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
17 # INTERRUPT BIT USED IN TEST

```

0020212

```

-001- 20 #8 TBL 7102
-001- 21 #8 TEST 71
-001- 22 #8 SEGMENT 1
-001- 23 #8 PR CDGNTI
-001- 24 #
25 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
26 # WHEN AN INTERRUPT WAS PRESENT.
27 # THE INTERRUPT WAS IN BIT 1 OF THE "IS" REGISTER
28 #
29 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 69

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7103 FLIP02

CDGNTI W77D

0020212

```

-001- 01 ## TBL 7103
-001- 02 ## TEST 71
-001- 03 ## SEGMENT 1
-001- 04 ## PR CDGNTI
-001- 05 #
06 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
07 # WHEN AN INTERRUPT WAS PRESENT.
08 # THE INTERRUPT WAS IN BIT 2 OF THE "IS" REGISTER
09 #
10 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10

```

0020212

```

-001- 13 ## TBL 7104
-001- 14 ## TEST 71
-001- 15 ## SEGMENT 1
-001- 16 ## PR CDGNTI
-001- 17 #
18 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
19 # WHEN AN INTERRUPT WAS PRESENT.
20 # THE INTERRUPT WAS IN BIT 3 OF THE "IS" REGISTER
21 #
22 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11

```

0020212

```

-001- 25 ## TBL 7105
-001- 26 ## TEST 71
-001- 27 ## SEGMENT 1
-001- 28 ## PR CDGNTI
-001- 29 #
30 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
31 # WHEN AN INTERRUPT WAS PRESENT.
32 # THE INTERRUPT WAS IN BIT 4 OF THE "IS" REGISTER
33 #
34 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 70

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7106 FLIP05

CDGNTI W77D

```

-001- 01 #8 TBL 7106
-001- 02 #8 TEST 71
-001- 03 #8 SEGMENT 1
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
07 # WHEN AN INTERRUPT WAS PRESENT.
08 # THE INTERRUPT WAS IN BIT 5 OF THE "IS" REGISTER
09 #
0020212 10 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13

-001- 13 #8 TBL 7107
-001- 14 #8 TEST 71
-001- 15 #8 SEGMENT 1
-001- 16 #8 PR CDGNTI
-001- 17 #
18 #
0020212 19 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
20 # WHEN AN INTERRUPT WAS PRESENT.
0020212 21 # THE INTERRUPT WAS IN BIT 6 OF THE "IS" REGISTER
22 #
23 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14

-001- 26 #8 TBL 7108
-001- 27 #8 TEST 71
-001- 28 #8 SEGMENT 1
-001- 29 #8 PR CDGNTI
-001- 30 #
31 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
32 # WHEN AN INTERRUPT WAS PRESENT.
0020212 33 # THE INTERRUPT WAS IN BIT 7 OF THE "IS" REGISTER
34 #
35 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 71

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7109 FLIP08

CDGNTI W770

0020212

```

-001- 01 #% TBL 7109
-001- 02 #% TEST 71
-001- 03 #% SEGMENT 1
-001- 04 #% PR CDGNTI
-001- 05 #
06 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
07 # WHEN AN INTERRUPT WAS PRESENT.
08 # THE INTERRUPT WAS IN BIT 8 OF THE "IS" REGISTER
09
10 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8

```

0020212

```

-001- 13 #% TBL 7110
-001- 14 #% TEST 71
-001- 15 #% SEGMENT 1
-001- 16 #% PR CDGNTI
-001- 17 #
18 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
19 # WHEN AN INTERRUPT WAS PRESENT.
20 # THE INTERRUPT WAS IN BIT 9 OF THE "IS" REGISTER
21
22 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

```

0020212

```

-001- 25 #% TBL 7111
-001- 26 #% TEST 71
-001- 27 #% SEGMENT 1
-001- 28 #% PR CDGNTI
-001- 29 #
30 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
31 # WHEN AN INTERRUPT WAS PRESENT.
32 # THE INTERRUPT WAS IN BIT 10 OF THE "IS" REGISTER
33
34 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 72

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7112 FLIP11

CDGNTI W770

0020212

-001- 01 #& TBL 7112
 -001- 02 #& TEST 71
 -001- 03 #& SEGMENT 1
 -001- 04 #& PR CDGNTI
 -001- 05 #
 06 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
 07 # WHEN AN INTERRUPT WAS PRESENT.
 08 # THE INTERRUPT WAS IN BIT 11 OF THE "IS" REGISTER
 09
 10 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11

0020212

-001- 13 #& TBL 7113
 -001- 14 #& TEST 71
 -001- 15 #& SEGMENT 1
 -001- 16 #& PR CDGNTI
 -001- 17 #
 18 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
 19 # WHEN AN INTERRUPT WAS PRESENT.
 20 # THE INTERRUPT WAS IN BIT 12 OF THE "IS" REGISTER
 21
 22 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

0020212

-001- 25 #& TBL 7114
 -001- 26 #& TEST 71
 -001- 27 #& SEGMENT 1
 -001- 28 #& PR CDGNTI
 -001- 29 #
 30 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
 31 # WHEN AN INTERRUPT WAS PRESENT.
 32 # THE INTERRUPT WAS IN BIT 13 OF THE "IS" REGISTER
 33
 34 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 73

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7115 FLIP14

CDGNTI W770

0020212

-001- 01 #& TBL 7115
 -001- 02 #& TEST 71
 -001- 03 #& SEGMENT 1
 -001- 04 #& PR CDGNTI
 -001- 05 #
 06 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
 07 # WHEN AN INTERRUPT WAS PRESENT.
 08 # THE INTERRUPT WAS IN BIT 14 OF THE "IS" REGISTER
 09 #
 10 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14

0020212

-001- 13 #& TBL 7116
 -001- 14 #& TEST 71
 -001- 15 #& SEGMENT 1
 -001- 16 #& PR CDGNTI
 -001- 17 #
 18 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 0
 19 # WHEN AN INTERRUPT WAS PRESENT.
 20 # THE INTERRUPT WAS IN BIT 15 OF THE "IS" REGISTER
 21 #
 22 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15

0020212

-001- 25 #& TBL 7117
 -001- 26 #& TEST 71
 -001- 27 #& SEGMENT 1
 -001- 28 #& PR CDGNTI
 -001- 29 #
 30 # THE "TINT" CROSSPOINT HAS FAILED TO SET THE DS COPY 1
 31 # WHEN AN INTERRUPT WAS PRESENT.
 32 #
 33 # PROC 06-32 FA1019 MICRO CONTROL 4

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 74

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7118 FLIPP

CDGNTI W77D

0020212

```

-001- 01 ## TBL 7118
-001- 02 ## TEST 71
-001- 03 ## SEGMENT 1
-001- 04 ## PR CDGNTI
-001- 05 #
06 # THE "TINT" CROSSPOINT HAS SET DS COPY 0 WHEN NO INTERRUPTS
07 # WERE PRESENT.
08 #
09 # PROC 06-35 FA1021 MICRO CONTROL 6
10 # DS BIT COPY 0
11 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
12 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9
13 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
14 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
15 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12
16 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
17 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
18 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15
19 # POSSIBLE FALSE SIGNAL FROM ANY
20 # INTERRUPT BIT

```

```

-001- 23 ## TBL 7119
-001- 24 ## TEST 71
-001- 25 ## SEGMENT 1
-001- 26 ## PR CDGNTI
-001- 27 #
28 # THE "TINT" CROSSPOINT HAS SET DS COPY 1 WHEN NO INTERRUPTS
29 # WERE PRESENT.
30 #
31 # PROC 06-32 FA1019 MICRO CONTROL 4

```

0020212

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 75

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7120 FLMASK00

CDGNTI W770

0020212

```

-001- 01 # TBL 7120
-001- 02 # TEST 71
-001- 03 # SEGMENT 1
-001- 04 # PR CDGNTI
-001- 05 #
06 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
07 # IN "IS" BIT 0
08 #
09 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8

```

0020212

```

-001- 12 # TBL 7121
-001- 13 # TEST 71
-001- 14 # SEGMENT 1
-001- 15 # PR CDGNTI
-001- 16 #
17 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
18 # IN "IS" BIT 1
19 #
20 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

```

0020212

```

-001- 23 # TBL 7122
-001- 24 # TEST 71
-001- 25 # SEGMENT 1
-001- 26 # PR CDGNTI
-001- 27 #
28 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
29 # IN "IS" BIT 2
30 #
31 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 76

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7123 FLMASK03

CDGNTI W77D

```

-001- 01 #8 TBL 7123
-001- 02 #8 TEST 71
-001- 03 #8 SEGMENT 1
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
07 # IN "IS" BIT 3
08 #
09 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11

0020212

-001- 12 #8 TBL 7124
-001- 13 #8 TEST 71
-001- 14 #8 SEGMENT 1
-001- 15 #8 PR CDGNTI
-001- 16 #
17 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
18 # IN "IS" BIT 4
19 #
20 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

0020212

-001- 23 #8 TBL 7125
-001- 24 #8 TEST 71
-001- 25 #8 SEGMENT 1
-001- 26 #8 PR CDGNTI
-001- 27 #
28 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
29 # IN "IS" BIT 5
30 #
31 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13

0020212

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 77

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7126 FLMASK06

CDGNTI W77D

0020212

-001- 01 # TBL 7126
 -001- 02 # TEST 71
 -001- 03 # SEGMENT 1
 -001- 04 # PR CDGNTI
 -001- 05 #
 06 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
 07 # IN "IS" BIT 6
 08
 09 # PROC D6-16 FA1010 GENERAL REGISTERS BITS 6 AND 14

0020212

-001- 12 # TBL 7127
 -001- 13 # TEST 71
 -001- 14 # SEGMENT 1
 -001- 15 # PR CDGNTI
 -001- 16 #
 17 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
 18 # IN "IS" BIT 7
 19
 20 # PROC D6-17 FA1010 GENERAL REGISTERS BITS 7 AND 15

0020212

-001- 23 # TBL 7128
 -001- 24 # TEST 71
 -001- 25 # SEGMENT 1
 -001- 26 # PR CDGNTI
 -001- 27 #
 28 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
 29 # IN "IS" BIT 8
 30
 31 # PROC D6-09 FA1010 GENERAL REGISTERS BITS 0 AND 8

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 78

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7129 FLMASK09

CDGNTI W77D

0020212

-001- 01 #8 TBL 7129
 -001- 02 #8 TEST 71
 -001- 03 #8 SEGMENT 1
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
 07 # IN "IS" BIT 9
 08
 09 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

0020212

-001- 12 #8 TBL 7130
 -001- 13 #8 TEST 71
 -001- 14 #8 SEGMENT 1
 -001- 15 #8 PR CDGNTI
 -001- 16 #
 17 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
 18 # IN "IS" BIT 10
 19
 20 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10

0020212

-001- 23 #8 TBL 7131
 -001- 24 #8 TEST 71
 -001- 25 #8 SEGMENT 1
 -001- 26 #8 PR CDGNTI
 -001- 27 #
 28 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
 29 # IN "IS" BIT 11
 30
 31 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 79

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7132 FLMASK12

CDGNTI W77D

```

-001- 01 #8 TBL 7132
-001- 02 #8 TEST 71
-001- 03 #8 SEGMENT 1
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
07 # IN "IS" BIT 12
08 #
09 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

```

0020212

```

-001- 12 #8 TBL 7133
-001- 13 #8 TEST 71
-001- 14 #8 SEGMENT 1
-001- 15 #8 PR CDGNTI
-001- 16 #
17 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
18 # IN "IS" BIT 13
19 #
20 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13

```

0020212

```

-001- 23 #8 TBL 7134
-001- 24 #8 TEST 71
-001- 25 #8 SEGMENT 1
-001- 26 #8 PR CDGNTI
-001- 27 #
28 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
29 # IN "IS" BIT 14
30 #
31 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14

```

0020212

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 80

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7135 FLMASK15

CDGNTI W77D

0020212

```

-001- 01 #8 TBL 7135
-001- 02 #8 TEST 71
-001- 03 #8 SEGMENT 1
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE INTERRUPT MASK HAS FAILED TO MASK AN INTERRUPT
07 # IN "IS" BIT 15
08 #
09 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15

```

0020212

```

-001- 12 #8 TBL 7136
-001- 13 #8 TEST 71
-001- 14 #8 SEGMENT 2
-001- 15 #8 PR CDGNTI
-001- 16 #
17 # THE "BIN" BIT HAS FAILED TO BLOCK INTERRUPTS
18 #
19 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10

```

0020212

```

-001- 22 #8 TBL 7137
-001- 23 #8 TEST 71
-001- 24 #8 SEGMENT 3
-001- 25 #8 PR CDGNTI
-001- 26 #
27 # FAILURE OF INTERRUPT TO CAUSE JAMMING TO INTERRUPT ADDRESS
28 # IN WAR. INTERRUPTS HAVE PREVIOUSLY RESPONDED TO "TINT"
29 # CROSSPOINT CORRECTLY.
30 #
31 # PROC 02-35 FA1016 MICRO CONTROL 1
32 # PROC 02-34 FA1017 MICRO CONTROL 2
33 # PROC 02-33 FA1018 MICRO CONTROL 3
34 # PROC 02-32 FA1022 MICRO CONTROL 7

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 81

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7138 FLINTCNT

CDGNTI W77D

0020212

```

-001- 01 ## TBL 7138
-001- 02 ## TEST 71
-001- 03 ## SEGMENT 3
-001- 04 ## PR CDGNTI
-001- 05 #
06 # THE PROCESSING OF AN INTERRUPT HAS RESULTED IN A
07 # MICRO ADDRESS ERROR
08 #
09 # PROC 02-35 FA1016 MICRO CONTROL 1
10 # PROC 02-34 FA1017 MICRO CONTROL 2
11 # PROC 02-33 FA1018 MICRO CONTROL 3
12 # PROC 02-32 FA1022 MICRO CONTROL 7

```

0020212

```

-001- 15 ## TBL 7139
-001- 16 ## TEST 71
-001- 17 ## SEGMENT 4
-001- 18 ## PR CDGNTI
-001- 19 #
20 # THE MAR WAS JAMMED TO THE INTERRUPT ADDRESS BEFORE THE SECOND
21 # OCCURANCE OF CLOCK PHASE P1.
22 #
23 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD
24 # PROC 02-34 FA1017 MICRO CONTROL 2
25 # PROC 02-32 FA1022 MICRO CONTROL 7
26 # PROC 06-31 FA1025 SYSTEM CLOCK

```

0020212

```

-001- 29 ## TBL 7140
-001- 30 ## TEST 71
-001- 31 ## SEGMENT 4
-001- 32 ## PR CDGNTI
-001- 33 #
34 # THE MAR WAS NOT JAMMED TO THE INTERRUPT ADDRESS AFTER TWO
35 # OCCURANCES OF CLOCK PHASE P1.
36 #
37 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD
38 # PROC 02-34 FA1017 MICRO CONTROL 2
39 # PROC 02-32 FA1022 MICRO CONTROL 7
40 # PROC 06-31 FA1025 SYSTEM CLOCK

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 82

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7201 FLMDR

CDGNTI W77D

0020212

```

-001- 01 #& TBL 7201
-001- 02 #& TEST 72
-001- 03 #& SEGMENT 1
-001- 04 #& PR CDGNTI
-001- 05 #
06 # THE ADDRESS MATCHER ON THE SAR AND AI INDICATED A MATCH
07 # WITH DR=0. THE MATCHER SHOULD BE TRIGGERED ON DR=1.
08 #
09 # PROC 06-35 FA1021 MICRO CONTROL 6
10 # DR BIT
11 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
12 # DR ENABLES OUTPUT OF MATCHER ON THIS BOARD
13 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11

```

0020212

```

-001- 16 #& TBL 7202
-001- 17 #& TEST 72
-001- 18 #& SEGMENT 1
-001- 19 #& PR CDGNTI
-001- 20 #
21 # THE ADM1 BIT OF THE "IS" REGISTER HAS FAILED TO GIVE
22 # A MATCH INDICATION. THE "SAR" & "AI" REGISTERS HAVE
23 # BEEN SET TO ALL ZEROS IN LOOP 1 AND ALL ONES IN LOOP 2.
24 # THE AK IS ALL ZEROS.
25 #
26 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9
27 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
28 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
29 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12
30 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
31 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
32 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15
33 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18
34 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19
35 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
36 # MATCH INDICATION BUFFERED ON THIS BOARD
37 # PROC 02-32 FA1022 MICRO CONTROL 7
38 # MATCHER IS TRIGGERED BY DR=1
39 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
40 # ADDRESS MATCH ENABLE BIT IN S5 BIT 0.
41 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
42 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9
43 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10
44 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11
45 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12
46 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13
47 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14
48 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15
49 # PROC 02-23 FA1046 DOUBLE STORE READ

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 83

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7202 FLMO

CDGNTI W77D

0020212

```

-001- 03 #& TBL 7203
-001- 04 #& TEST 72
-001- 05 #& SEGMENT 2
-001- 06 #& PR CDGNTI
-001- 07 #
08 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
09 # FALSE MATCH INDICATION. THE "SAR" HAS
10 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "0" OF THE
11 # AI REGISTER HAS BEEN SET TO "1".
12 #
13 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
14 # AK,AI,SAR BIT 0
15 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
16 # MATCH INDICATION BUFFERED ON THIS BOARD
17 # PROC 02-32 FA1022 MICRO CONTROL 7
18 # MATCHER IS TPIGGERED BY DR=1

```

0020212

```

-001- 21 #& TBL 7204
-001- 22 #& TEST 72
-001- 23 #& SEGMENT 2
-001- 24 #& PR CDGNTI
-001- 25 #
26 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
27 # FALSE MATCH INDICATION. THE "SAR" HAS
28 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "1" OF THE
29 # AI REGISTER HAS BEEN SET TO "1".
30 #
31 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 84

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7205 FL2

CDGNTI W77D

```

-001- 01 #B TBL 7205
-001- 02 #B TEST 72
-001- 03 #B SEGMENT 2
-001- 04 #B PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
07 # FALSE MATCH INDICATION. THE "SAR" HAS
08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "2" OF THE
09 # AI REGISTER HAS BEEN SET TO "1".
10 #
0020212 11 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

```

```

-001- 14 #B TBL 7206
-001- 15 #B TEST 72
-001- 16 #B SEGMENT 2
-001- 17 #B PR CDGNTI
-001- 18 #
19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
20 # FALSE MATCH INDICATION. THE "SAR" HAS
21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "3" OF THE
22 # AI REGISTER HAS BEEN SET TO "1".
23 #
0020212 24 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

```

```

-001- 27 #B TBL 7207
-001- 28 #B TEST 72
-001- 29 #B SEGMENT 2
-001- 30 #B PR CDGNTI
-001- 31 #
32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
33 # FALSE MATCH INDICATION. THE "SAR" HAS
34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "4" OF THE
35 # AI REGISTER HAS BEEN SET TO "1".
36 #
0020212 37 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 85

TROUBLE LOCATION MANUAL

7208 FL5

23:13:53 2/05/81 ****

CDGNTI W77D

0020212

```
-001- 01 ## TBL 7208
-001- 02 ## TEST 72
-001- 03 ## SEGMENT 2
-001- 04 ## PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
07 # FALSE MATCH INDICATION. THE "SAR" HAS
08 # THE ADMI BIT OF THE "IS" REGISTER HAS FAILED TO GIVE
09 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "5" OF THE
10 # AI REGISTER HAS BEEN SET TO "1".
11 #
12 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13
```

0020212

```
-001- 15 ## TBL 7209
-001- 16 ## TEST 72
-001- 17 ## SEGMENT 2
-001- 18 ## PR CDGNTI
-001- 19 #
20 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
21 # FALSE MATCH INDICATION. THE "SAR" HAS
22 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "6" OF THE
23 # AI REGISTER HAS BEEN SET TO "1".
24 #
25 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14
```

0020212

```
-001- 28 ## TBL 7210
-001- 29 ## TEST 72
-001- 30 ## SEGMENT 2
-001- 31 ## PR CDGNTI
-001- 32 #
33 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
34 # FALSE MATCH INDICATION. THE "SAR" HAS
35 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "7" OF THE
36 # AI REGISTER HAS BEEN SET TO "1".
37 #
38 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15
```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 86

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7211 FL8

CDGNTI W77D

0020212

-001- 01 #5 TBL 7211
 -001- 02 #8 TEST 72
 -001- 03 #8 SEGMENT 2
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "SAR" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "8" OF THE
 09 # AI REGISTER HAS BEEN SET TO "1".
 10
 11 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

0020212

-001- 14 #8 TBL 7212
 -001- 15 #8 TEST 72
 -001- 16 #8 SEGMENT 2
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "SAR" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "9" OF THE
 22 # AI REGISTER HAS BEEN SET TO "1".
 23
 24 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

0020212

-001- 27 #8 TBL 7213
 -001- 28 #8 TEST 72
 -001- 29 #8 SEGMENT 2
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "SAR" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "10" OF THE
 35 # AI REGISTER HAS BEEN SET TO "1".
 36
 37 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 87

TROUBLE LOCATION MANUAL

7214 FL11

23:13:53 2/05/81 ****

CDGNTI W77D

0020212

```

-001- 01 #8 TBL 7214
-001- 02 #8 TEST 72
-001- 03 #8 SEGMENT 2
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
07 # FALSE MATCH INDICATION. THE "SAR" HAS
08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "11" OF THE
09 # AI REGISTER HAS BEEN SET TO "1".
10 #
11 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

```

0020212

```

-001- 14 #8 TBL 7215
-001- 15 #8 TEST 72
-001- 16 #8 SEGMENT 2
-001- 17 #8 PR CDGNTI
-001- 18 #
19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
20 # FALSE MATCH INDICATION. THE "SAR" HAS
21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "12" OF THE
22 # AI REGISTER HAS BEEN SET TO "1".
23 #
24 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

```

0020212

```

-001- 27 #8 TBL 7216
-001- 28 #8 TEST 72
-001- 29 #8 SEGMENT 2
-001- 30 #8 PR CDGNTI
-001- 31 #
32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
33 # FALSE MATCH INDICATION. THE "SAR" HAS
34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "13" OF THE
35 # AI REGISTER HAS BEEN SET TO "1".
36 #
37 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7217 PL14

CDGNTI W77D

0020212

-001- 01 #8 TBL 7217
 -001- 02 #8 TEST 72
 -001- 03 #8 SEGMENT 2
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "SAR" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "14" OF THE
 09 # AI REGISTER HAS BEEN SET TO "1".
 10
 11 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

0020212

-001- 14 #8 TBL 7218
 -001- 15 #8 TEST 72
 -001- 16 #8 SEGMENT 2
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "SAR" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "15" OF THE
 22 # AI REGISTER HAS BEEN SET TO "1".
 23
 24 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

0020212

-001- 27 #8 TBL 7219
 -001- 28 #8 TEST 72
 -001- 29 #8 SEGMENT 2
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "SAR" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "16" OF THE
 35 # AI REGISTER HAS BEEN SET TO "1".
 36
 37 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 89

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7220 FL17

CDGNTI W770

0020212

```

-001- 01 # TBL 7220
-001- 02 # TEST 72
-001- 03 # SEGMENT 2
-001- 04 # PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
07 # FALSE MATCH INDICATION. THE "SAR" HAS
08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "17" OF THE
09 # AI REGISTER HAS BEEN SET TO "1".
10 #
11 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

```

0020212

```

-001- 14 # TBL 7221
-001- 15 # TEST 72
-001- 16 # SEGMENT 2
-001- 17 # PR CDGNTI
-001- 18 #
19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
20 # FALSE MATCH INDICATION. THE "SAR" HAS
21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "18" OF THE
22 # AI REGISTER HAS BEEN SET TO "1".
23 #
24 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18

```

0020212

```

-001- 27 # TBL 7222
-001- 28 # TEST 72
-001- 29 # SEGMENT 2
-001- 30 # PR CDGNTI
-001- 31 #
32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
33 # FALSE MATCH INDICATION. THE "SAR" HAS
34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "19" OF THE
35 # AI REGISTER HAS BEEN SET TO "1".
36 #
37 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 90

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7223 FAO

CDGNTI W77D

0020212

-001- 01 #8 TBL 7223
 -001- 02 #8 TEST 72
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "AI" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "0" OF THE
 09 # SAR REGISTER HAS BEEN SET TO "1".
 10
 11 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

0020212

-001- 14 #8 TBL 7224
 -001- 15 #8 TEST 72
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "AI" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "1" OF THE
 22 # SAR REGISTER HAS BEEN SET TO "1".
 23
 24 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

0020212

-001- 27 #8 TBL 7225
 -001- 28 #8 TEST 72
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "AI" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "2" OF THE
 35 # SAR REGISTER HAS BEEN SET TO "1".
 36
 37 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 91

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7226 FA3

CDGNTI W77D

0020212

-001- 01 #8 TBL 7226
 -001- 02 #8 TEST 72
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "AI" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "3" OF THE
 09 # SAR REGISTER HAS BEEN SET TO "1".
 10
 11 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

0020212

-001- 14 #8 TBL 7227
 -001- 15 #8 TEST 72
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "AI" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "4" OF THE
 22 # SAR REGISTER HAS BEEN SET TO "1".
 23
 24 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

0020212

-001- 27 #8 TBL 7228
 -001- 28 #8 TEST 72
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "AI" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "5" OF THE
 35 # SAR REGISTER HAS BEEN SET TO "1".
 36
 37 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 92

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7229 FA6

CDGNTI W77D

0020212

-001- 01 ## TBL 7229
 -001- 02 ## TEST 72
 -001- 03 ## SEGMENT 3
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "AI" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "6" OF THE
 09 # SAR REGISTER HAS BEEN SET TO "1".
 10
 11 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

0020212

-001- 14 ## TBL 7230
 -001- 15 ## TEST 72
 -001- 16 ## SEGMENT 3
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "AI" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "7" OF THE
 22 # SAR REGISTER HAS BEEN SET TO "1".
 23
 24 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

0020212

-001- 27 ## TBL 7231
 -001- 28 ## TEST 72
 -001- 29 ## SEGMENT 3
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "AI" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "8" OF THE
 35 # SAR REGISTER HAS BEEN SET TO "1".
 36
 37 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 93

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7232 FA9

CDGNTI W77D

0020212

-001- 01 #B TBL 7232
 -001- 02 #B TEST 72
 -001- 03 #B SEGMENT 3
 -001- 04 #B PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "AI" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "9" OF THE
 09 # SAR REGISTER HAS BEEN SET TO "1".
 10 #
 11 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

0020212

-001- 14 #B TBL 7233
 -001- 15 #B TEST 72
 -001- 16 #B SEGMENT 3
 -001- 17 #B PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "AI" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "10" OF THE
 22 # SAR REGISTER HAS BEEN SET TO "1".
 23 #
 24 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

0020212

-001- 27 #B TBL 7234
 -001- 28 #B TEST 72
 -001- 29 #B SEGMENT 3
 -001- 30 #B PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "AI" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "11" OF THE
 35 # SAR REGISTER HAS BEEN SET TO "1".
 36 #
 37 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 94

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7235 FA12

CDGNTI W77D

0020212

```

-001- 01 #8 TBL 7235
-001- 02 #8 TEST 72
-001- 03 #8 SEGMENT 3
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
07 # FALSE MATCH INDICATION. THE "AI" HAS
08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "12" OF THE
09 # SAR REGISTER HAS BEEN SET TO "1".
10 #
11 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

```

0020212

```

-001- 14 #8 TBL 7236
-001- 15 #8 TEST 72
-001- 16 #8 SEGMENT 3
-001- 17 #8 PR CDGNTI
-001- 18 #
19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
20 # FALSE MATCH INDICATION. THE "AI" HAS
21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "13" OF THE
22 # SAR REGISTER HAS BEEN SET TO "1".
23 #
24 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

```

0020212

```

-001- 27 #8 TBL 7237
-001- 28 #8 TEST 72
-001- 29 #8 SEGMENT 3
-001- 30 #8 PR CDGNTI
-001- 31 #
32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
33 # FALSE MATCH INDICATION. THE "AI" HAS
34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "14" OF THE
35 # SAR REGISTER HAS BEEN SET TO "1".
36 #
37 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 95

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7238 FA15

CDGNTI M77D

0020212

-001- 01 # TBL 7238
 -001- 02 # TEST 72
 -001- 03 # SEGMENT 3
 -001- 04 # PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 07 # FALSE MATCH INDICATION. THE "AI" HAS
 08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "15" OF THE
 09 # SAR REGISTER HAS BEEN SET TO "1".
 10
 11 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

0020212

-001- 14 # TBL 7239
 -001- 15 # TEST 72
 -001- 16 # SEGMENT 3
 -001- 17 # PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 20 # FALSE MATCH INDICATION. THE "AI" HAS
 21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "16" OF THE
 22 # SAR REGISTER HAS BEEN SET TO "1".
 23
 24 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18

0020212

-001- 27 # TBL 7240
 -001- 28 # TEST 72
 -001- 29 # SEGMENT 3
 -001- 30 # PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
 33 # FALSE MATCH INDICATION. THE "AI" HAS
 34 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "17" OF THE
 35 # SAR REGISTER HAS BEEN SET TO "1".
 36
 37 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 96

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7241 FA18

CDGNTI W77D

0020212

```

-001- 01 ## TBL 7241
-001- 02 ## TEST 72
-001- 03 ## SEGMENT 3
-001- 04 ## PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
07 # FALSE MATCH INDICATION. THE "AI" HAS
08 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "18" OF THE
09 # SAR REGISTER HAS BEEN SET TO "1".
10 #
11 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18

```

0020212

```

-001- 14 ## TBL 7242
-001- 15 ## TEST 72
-001- 16 ## SEGMENT 3
-001- 17 ## PR CDGNTI
-001- 18 #
19 # THE ADMI BIT IN THE "IS" REGISTER HAS GIVEN A
20 # FALSE MATCH INDICATION. THE "AI" HAS
21 # BEEN SET TO ALL ZEROS FOR THIS TEST. BIT "19" OF THE
22 # SAR REGISTER HAS BEEN SET TO "1".
23 #
24 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

```

0020212

```

-001- 27 ## TBL 7243
-001- 28 ## TEST 72
-001- 29 ## SEGMENT 4
-001- 30 ## PR CDGNTI
-001- 31 #
32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
34 # REGISTER "AK" SET TO ALL ONES.
35 # THE MISMATCH WAS IN BIT 0.
36 #
37 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
38 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
39 # ADDRESS AND DATA MATCH ENABLE LOGIC IS HERE

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 97

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7244 FL1M

CDGNTI W77D

0020212

-001- 01 ## TBL 7244
 -001- 02 ## TEST 72
 -001- 03 ## SEGMENT 4
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 08 # REGISTER "AK" SET TO ALL ONES.
 09 # THE MISMATCH WAS IN BIT 1.
 10 #
 11 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

0020212

-001- 14 ## TBL 7245
 -001- 15 ## TEST 72
 -001- 16 ## SEGMENT 4
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 20 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 21 # REGISTER "AK" SET TO ALL ONES.
 22 # THE MISMATCH WAS IN BIT 2.
 23 #
 24 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

0020212

-001- 27 ## TBL 7246
 -001- 28 ## TEST 72
 -001- 29 ## SEGMENT 4
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 34 # REGISTER "AK" SET TO ALL ONES.
 35 # THE MISMATCH WAS IN BIT 3.
 36 #
 37 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 98

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7247 FLAM

CDGNTI W770

0020212

-001- 01 #8 TBL 7247
 -001- 02 #8 TEST 72
 -001- 03 #8 SEGMENT 4
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 08 # REGISTER "AK" SET TO ALL ONES.
 09 # THE MISMATCH WAS IN BIT 4.
 10
 11 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

0020212

-001- 14 #8 TBL 7248
 -001- 15 #8 TEST 72
 -001- 16 #8 SEGMENT 4
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 20 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 21 # REGISTER "AK" SET TO ALL ONES.
 22 # THE MISMATCH WAS IN BIT 5.
 23
 24 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

0020212

-001- 27 #8 TBL 7249
 -001- 28 #8 TEST 72
 -001- 29 #8 SEGMENT 4
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 34 # REGISTER "AK" SET TO ALL ONES.
 35 # THE MISMATCH WAS IN BIT 6.
 36
 37 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 99

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7250 FL7M

CDGNTI W77D

0020212

-001- 01 ## TBL 7250
 -001- 02 ## TEST 72
 -001- 03 ## SEGMENT 4
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 08 # REGISTER "AK" SET TO ALL ONES.
 09 # THE MISMATCH WAS IN BIT 7.
 10 #
 11 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

0020212

-001- 14 ## TBL 7251
 -001- 15 ## TEST 72
 -001- 16 ## SEGMENT 4
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 20 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 21 # REGISTER "AK" SET TO ALL ONES.
 22 # THE MISMATCH WAS IN BIT 8.
 23 #
 24 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

0020212

-001- 27 ## TBL 7252
 -001- 28 ## TEST 72
 -001- 29 ## SEGMENT 4
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 34 # REGISTER "AK" SET TO ALL ONES.
 35 # THE MISMATCH WAS IN BIT 9.
 36 #
 37 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 100

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7253 FL10M

CDGNTI W77D

0020212

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-001- 01 #B TBL 7253
-001- 02 #B TEST 72
-001- 03 #B SEGMENT 4
-001- 04 #B PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
08 # REGISTER "AK" SET TO ALL ONES.
09 # THE MISMATCH WAS IN BIT 10.
10
11 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

```

0020212

```

-001- 14 #B TBL 7254
-001- 15 #B TEST 72
-001- 16 #B SEGMENT 4
-001- 17 #B PR CDGNTI
-001- 18 #
19 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
20 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
21 # REGISTER "AK" SET TO ALL ONES.
22 # THE MISMATCH WAS IN BIT 11.
23
24 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

```

0020212

```

-001- 27 #B TBL 7255
-001- 28 #B TEST 72
-001- 29 #B SEGMENT 4
-001- 30 #B PR CDGNTI
-001- 31 #
32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
34 # REGISTER "AK" SET TO ALL ONES.
35 # THE MISMATCH WAS IN BIT 12.
36
37 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 101

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7256 FL13M

CDGNTI W77D

0020212

-001- 01 #B TBL 7256
 -001- 02 #B TEST 72
 -001- 03 #B SEGMENT 4
 -001- 04 #B PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 08 # REGISTER "AK" SET TO ALL ONES.
 09 # THE MISMATCH WAS IN BIT 13.
 10 #
 11 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

0020212

-001- 14 #B TBL 7257
 -001- 15 #B TEST 72
 -001- 16 #B SEGMENT 4
 -001- 17 #B PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 20 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 21 # REGISTER "AK" SET TO ALL ONES.
 22 # THE MISMATCH WAS IN BIT 14.
 23 #
 24 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

0020212

-001- 27 #B TBL 7258
 -001- 28 #B TEST 72
 -001- 29 #B SEGMENT 4
 -001- 30 #B PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 34 # REGISTER "AK" SET TO ALL ONES.
 35 # THE MISMATCH WAS IN BIT 15.
 36 #
 37 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 102

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7259 FL16M

CDGNTI W77D

0020212

-001- 01 ## TBL 7259
 -001- 02 ## TEST 72
 -001- 03 ## SEGMENT 4
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 08 # REGISTER "AK" SET TO ALL ONES.
 09 # THE MISMATCH WAS IN BIT 16.
 10
 11 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18

0020212

-001- 14 ## TBL 7260
 -001- 15 ## TEST 72
 -001- 16 ## SEGMENT 4
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 20 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 21 # REGISTER "AK" SET TO ALL ONES.
 22 # THE MISMATCH WAS IN BIT 17.
 23
 24 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

0020212

-001- 27 ## TBL 7261
 -001- 28 ## TEST 72
 -001- 29 ## SEGMENT 4
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
 33 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
 34 # REGISTER "AK" SET TO ALL ONES.
 35 # THE MISMATCH WAS IN BIT 18.
 36
 37 # PROC 02-19 FA1030 MISC. DEC. - REGISTERS BITS 16 AND 18

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 103

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7262 FL19M

CDGNTI W77D

```

-001- 01 ## TBL 7262
-001- 02 ## TEST 72
-001- 03 ## SEGMENT 4
-001- 04 ## PR CDGNTI
-001- 05 #
06 # THE ADMI BIT IN THE "IS" REGISTER HAS FAILED
07 # TO INDICATE AN ADDRESS MATCH WHEN A MISMATCH WAS MASKED BY
08 # REGISTER "AK" SET TO ALL ONES.
09 # THE MISMATCH WAS IN BIT 19.
0020212 10 #
11 # PROC 02-20 FA1030 MISC. DEC. - REGISTERS BITS 17 AND 19

-001- 14 ## TBL 7301
-001- 15 ## TEST 73
-001- 16 ## SEGMENT 1
-001- 17 ## PR CDGNTI
-001- 18 #
19 # THE DATA MATCH CIRCUIT HAS FAILED TO INDICATE A MATCH BETWEEN
20 # THE DI REGISTER AND THE STORE BUS.
0020212 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
22 #
23 # NOTE: IF YOU GET TROUBLE NUMBER 7300 TRY REPLACING
0020212 24 # PACK FA1010 AT 06-14
0020212 25 #
26 #
27 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
28 # MATCH INDICATION BUFFERED ON THIS BOARD
29 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12
30 # MATCH SHOULD SET INTERRUPT BIT ON THIS BOARD
31 # PROC 02-32 FA1022 MICRO CONTROL 7
32 # MATCHER IS TRIGGERED ON DR=1
33 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
34 # DATA MATCH ENABLE BIT
35 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
36 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9
37 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10
38 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11
39 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12
40 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13
41 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14
42 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15
43 # BIT SLICED BOARDS FOR DI,DK,BUS, AND MATCHER
44 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
45 # PROC 02-35 FA1016 MICRO CONTROL 1

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 104

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7302 FLMIS00

CDGNTI W77D

0020212

```

-001- 01 #6 TBL 7302
-001- 02 #6 TEST 73
-001- 03 #6 SEGMENT 2
-001- 04 #6 PR CDGNTI
-001- 05 #
06 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
07 # WHEN A MISMATCH WAS PRESENT.
08 # THE MISMATCH WAS IN BIT 0
09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
10 #
11 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8
12 # DI,DK, AND STORE BUS BIT 0
13 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
14 # MATCH INDICATION BUFFERED ON THIS BOARD
15 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12
16 # INTERRUPT BIT IS BIT 4
17 # PROC 02-32 FA1022 MICRO CONTROL 7
18 # MATCHER IS TRIGGERED ON DR=1

```

0020212

```

-001- 21 #6 TBL 7303
-001- 22 #6 TEST 73
-001- 23 #6 SEGMENT 2
-001- 24 #6 PR CDGNTI
-001- 25 #
26 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
27 # WHEN A MISMATCH WAS PRESENT.
28 # THE MISMATCH WAS IN BIT 1
29 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
30 #
31 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 105

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7304 FLHIS02

CDGNTI W77D

0020212

-001- 01 #8 TBL 7304
 -001- 02 #8 TEST 73
 -001- 03 #8 SEGMENT 2
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 07 # WHEN A MISMATCH WAS PRESENT.
 08 # THE MISMATCH WAS IN BIT 2
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10
 11 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

0020212

-001- 14 #8 TBL 7305
 -001- 15 #8 TEST 73
 -001- 16 #8 SEGMENT 2
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 20 # WHEN A MISMATCH WAS PRESENT.
 21 # THE MISMATCH WAS IN BIT 3
 22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 23
 24 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

0020212

-001- 27 #8 TBL 7306
 -001- 28 #8 TEST 73
 -001- 29 #8 SEGMENT 2
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 33 # WHEN A MISMATCH WAS PRESENT.
 34 # THE MISMATCH WAS IN BIT 4
 35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 36
 37 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 106

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7307 FLWIS05

CDGNTI W77D

0020212

-001- 01 #8 TBL 7307
 -001- 02 #8 TEST 73
 -001- 03 #8 SEGMENT 2
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 07 # WHEN A MISMATCH WAS PRESENT.
 08 # THE MISMATCH WAS IN BIT 5
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10
 11 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

0020212

-001- 14 #8 TBL 7308
 -001- 15 #8 TEST 73
 -001- 16 #8 SEGMENT 2
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 20 # WHEN A MISMATCH WAS PRESENT.
 21 # THE MISMATCH WAS IN BIT 6
 22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 23
 24 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

0020212

-001- 27 #8 TBL 7309
 -001- 28 #8 TEST 73
 -001- 29 #8 SEGMENT 2
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 33 # WHEN A MISMATCH WAS PRESENT.
 34 # THE MISMATCH WAS IN BIT 7
 35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 36
 37 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 107

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7310 FLMIS08

CDGNTI

W77D

0020212

```

-001- 01 #& TBL 7310
-001- 02 #& TEST 73
-001- 03 #& SEGMENT 2
-001- 04 #& PR CDGNTI
-001- 05 #
06 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
07 # WHEN A MISMATCH WAS PRESENT.
08 # THE MISMATCH WAS IN BIT 8
09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
10
11 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

```

0020212

```

-001- 14 #& TBL 7311
-001- 15 #& TEST 73
-001- 16 #& SEGMENT 2
-001- 17 #& PR CDGNTI
-001- 18 #
19 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
20 # WHEN A MISMATCH WAS PRESENT.
21 # THE MISMATCH WAS IN BIT 9
22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
23
24 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

```

0020212

```

-001- 27 #& TBL 7312
-001- 28 #& TEST 73
-001- 29 #& SEGMENT 2
-001- 30 #& PR CDGNTI
-001- 31 #
32 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
33 # WHEN A MISMATCH WAS PRESENT.
34 # THE MISMATCH WAS IN BIT 10
35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
36
37 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

```

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET

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23:13:53 2/05/81 ****

7313 FLMI811

CDGNTI W77D

0020212

-001- 01 #8 TBL 7313
 -001- 02 #8 TEST 73
 -001- 03 #8 SEGMENT 2
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 07 # WHEN A MISMATCH WAS PRESENT.
 08 # THE MISMATCH WAS IN BIT 11
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10
 11 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

0020212

-001- 14 #8 TBL 7314
 -001- 15 #8 TEST 73
 -001- 16 #8 SEGMENT 2
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 20 # WHEN A MISMATCH WAS PRESENT.
 21 # THE MISMATCH WAS IN BIT 12
 22
 23 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 24 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

0020212

-001- 27 #8 TBL 7315
 -001- 28 #8 TEST 73
 -001- 29 #8 SEGMENT 2
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 33 # WHEN A MISMATCH WAS PRESENT.
 34 # THE MISMATCH WAS IN BIT 13
 35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 36
 37 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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23:13:53 2/05/81 ****

7316 FLHIS14

CDGNTI W77D

0020212

-001- 01 #& TBL 7316
 -001- 02 #& TEST 73
 -001- 03 #& SEGMENT 2
 -001- 04 #& PR CDGNTI
 -001- 05 #
 06 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 07 # WHEN A MISMATCH WAS PRESENT.
 08 # THE MISMATCH WAS IN BIT 14
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10
 11 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

0020212

-001- 14 #& TBL 7317
 -001- 15 #& TEST 73
 -001- 16 #& SEGMENT 2
 -001- 17 #& PR CDGNTI
 -001- 18 #
 19 # THE DATA MATCH CIRCUIT ON THE DI AND STORE BUS HAS INDICATED A MATCH
 20 # WHEN A MISMATCH WAS PRESENT.
 21 # THE MISMATCH WAS IN BIT 15
 22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 23
 24 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15
 25 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE

0020212

-001- 28 #& TBL 7316
 -001- 29 #& TEST 73
 -001- 30 #& SEGMENT 3
 -001- 31 #& PR CDGNTI
 -001- 32 #
 33 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 34 # THE DI AND THE BUS.
 35 # THE MISMATCH WAS IN BIT 0
 36 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 37
 38 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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23:13:53 2/05/81 ****

7319 FLH5K01

CDGNTI W77D

0020212

-001- 01 #8 TBL 7319
 -001- 02 #8 TEST 73
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 07 # THE DI AND THE BUS.
 08 # THE MISMATCH WAS IN BIT 1
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10
 11 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

0020212

-001- 14 #8 TBL 7320
 -001- 15 #8 TEST 73
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 20 # THE DI AND THE BUS.
 21 # THE MISMATCH WAS IN BIT 2
 22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 23
 24 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

0020212

-001- 27 #8 TBL 7321
 -001- 28 #8 TEST 73
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 33 # THE DI AND THE BUS.
 34 # THE MISMATCH WAS IN BIT 3
 35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 36
 37 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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7322 FLMSK04

CDGNTI W77D

0020212

-001- 01 ## TBL 7322
 -001- 02 ## TEST 73
 -001- 03 ## SEGMENT 3
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 07 # THE DI AND THE BUS.
 08 # THE MISMATCH WAS IN BIT 4
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10
 11 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

0020212

-001- 14 ## TBL 7323
 -001- 15 ## TEST 73
 -001- 16 ## SEGMENT 3
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 20 # THE DI AND THE BUS.
 21 # THE MISMATCH WAS IN BIT 5
 22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 23
 24 # PROC 02-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

0020212

-001- 27 ## TBL 7324
 -001- 28 ## TEST 73
 -001- 29 ## SEGMENT 3
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 33 # THE DI AND THE BUS.
 34 # THE MISMATCH WAS IN BIT 6
 35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 36
 37 # PROC 02-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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23:13:53 2/05/81 ****

7325 FLMSK07

CDGNTI W77D

0020212

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-001- 01 #8 TBL 7325
-001- 02 #8 TEST 73
-001- 03 #8 SEGMENT 3
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
07 # THE DI AND THE BUS.
08 # THE MISMATCH WAS IN BIT 7
09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
10
11 # PROC 02-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

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0020212

```

-001- 14 #8 TBL 7326
-001- 15 #8 TEST 73
-001- 16 #8 SEGMENT 3
-001- 17 #8 PR CDGNTI
-001- 18 #
19 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
20 # THE DI AND THE BUS.
21 # THE MISMATCH WAS IN BIT 8
22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
23
24 # PROC 02-08 FA1024 SPECIAL REGISTERS BITS 0 AND 8

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0020212

```

-001- 27 #8 TBL 7327
-001- 28 #8 TEST 73
-001- 29 #8 SEGMENT 3
-001- 30 #8 PR CDGNTI
-001- 31 #
32 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
33 # THE DI AND THE BUS.
34 # THE MISMATCH WAS IN BIT 9
35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
36
37 # PROC 02-09 FA1024 SPECIAL REGISTERS BITS 1 AND 9

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 113

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23:13:53 2/05/81 ****

7328 FLMSK10

CDGNTI W770

0020212

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-001- 01 #& TBL 7328
-001- 02 #& TEST 73
-001- 03 #& SEGMENT 3
-001- 04 #& PR CDGNTI
-001- 05 #
06 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
07 # THE DI AND THE BUS.
08 # THE MISMATCH WAS IN BIT 10
09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
10 #
11 # PROC 02-10 FA1024 SPECIAL REGISTERS BITS 2 AND 10

```

0020212

```

-001- 14 #& TBL 7329
-001- 15 #& TEST 73
-001- 16 #& SEGMENT 3
-001- 17 #& PR CDGNTI
-001- 18 #
19 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
20 # THE DI AND THE BUS.
21 # THE MISMATCH WAS IN BIT 11
22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
23 #
24 # PROC 02-11 FA1024 SPECIAL REGISTERS BITS 3 AND 11

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0020212

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-001- 27 #& TBL 7330
-001- 28 #& TEST 73
-001- 29 #& SEGMENT 3
-001- 30 #& PR CDGNTI
-001- 31 #
32 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
33 # THE DI AND THE BUS.
34 # THE MISMATCH WAS IN BIT 12
35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
36 #
37 # PROC 02-12 FA1024 SPECIAL REGISTERS BITS 4 AND 12

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 114

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23:13:53 2/05/81 ****

7331 FLNSK13

CDGNTI

W770

0020212

-001- 01 ## TBL 7331
 -001- 02 ## TEST 73
 -001- 03 ## SEGMENT 3
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 07 # THE DI AND THE BUS.
 08 # THE MISMATCH WAS IN BIT 13
 09 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 10 #
 11 # PROC D2-13 FA1024 SPECIAL REGISTERS BITS 5 AND 13

0020212

-001- 14 ## TBL 7332
 -001- 15 ## TEST 73
 -001- 16 ## SEGMENT 3
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 20 # THE DI AND THE BUS.
 21 # THE MISMATCH WAS IN BIT 14
 22 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 23 #
 24 # PROC D2-16 FA1024 SPECIAL REGISTERS BITS 6 AND 14

0020212

-001- 27 ## TBL 7333
 -001- 28 ## TEST 73
 -001- 29 ## SEGMENT 3
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # A BIT IN THE DK HAS FAILED TO MASK A MISMATCH BETWEEN
 33 # THE DI AND THE BUS.
 34 # THE MISMATCH WAS IN BIT 15
 35 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 36 #
 37 # PROC D2-17 FA1024 SPECIAL REGISTERS BITS 7 AND 15

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET .CDGNTI ISSUE 04 PAGE 145

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7334 FLDME

CDGNTI W77D

0020212

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-001- 01 #8 TBL 7334
-001- 02 #8 TEST 73
-001- 03 #8 SEGMENT 4
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE "DME" BIT IN THE SS HAS FAILED TO INHIBIT A DATA MATCH
07 # WHEN IN THE CLEAR STATE
08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
09
10 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
11 # "DME" BIT
12 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
13 # INHIBIT FUNCTION IS DONE ON THIS BOARD
14 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

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0020212

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-001- 17 #8 TBL 7401
-001- 18 #8 TEST 74
-001- 19 #8 SEGMENT 1
-001- 20 #8 PR CDGNTI
-001- 21 #
22 # MULTIPLE I/O CHANNELS HAVE BEEN SELECTED AS INDICATED BY THE
23 # CHECK CIRCUIT OR THE CHECK CIRCUIT HAS FAILED TO INDICATE
24 # AN INCORRECT CHANNEL SELECT CODE
25 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
26 # *** NOTE ***
27 # IF THERE IS A NON STANDARD CHANNEL SUCH AS IN NO. 2B ESS, IT COULD
28 # CAUSE THIS TROUBLE. IN NO. 2B ESS SEE PACKS FOR TROUBLE NUMBERS
29 # 8111 AND 8812.
30
31 # PROC 02-31 FA1023 MICRO CONTROL 8
32 # I/O MULTIPLE CHANNEL CHECK CIRCUIT
33 # PROC 10-22 FA1028 ERROR REG/DISPLAY BUFFER HIGH BITS
34 # MULTIPLE CHANNEL ERROR BIT
35 # PROC 02-28 FA1036 MAINTENANCE CHANNEL BITS 11-19
36 # DEDICATED GATING PATH FROM ER TO MAINTENANCE CHANNEL
37 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
38 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
39 # NOTE--1 PROC 10-07 FA1036 I/O CHAN 1 CONTROL
40 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
41 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
42 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL
43 # ANY EQUIPPED CHANNEL MAY BE ERRONEOUSLY SELECTED
44 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD
45 # DECODING OF "MODIOCH" AND "STCH" CROSSPOINTS
46
47 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
48 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
49 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

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0020212

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TROUBLE LOCATION MANUAL

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7401 FLMLTIO

CDGNTI W770

01 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
 02 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
 03 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15
 04 # DEDICATED PATH FROM R9 TO I/O CHANNELS
 05 # NOTE--3 CTI 02-02 FA1212 CTI BOARD 2
 06 # NOTE--3 DMA 02-23 FC388 DMA CC INTERFACE BOARD
 07 # NOTE--3 DMA 02-22 FC389 DMA PRIORITY BOARD
 08 # NOTE--3 DMA 02-24 FC391 DMA STATUS BOARD 2
 09 # HASCH 08-23 FC203 MAIN STORE CONTROLLER CLOCK & I/O INTERFACE

-001- 12 #8 TBL 7402
 -001- 13 #8 TEST 74
 -001- 14 #8 SEGMENT 2
 -001- 15 #8 PR CDGNTI
 -001- 16 #
 17 # ALL I/O CHANNELS ARE IDLED AND AN I/O ERROR IS PRESENT.
 18 # ANY EQUIPPED CHANNEL MAY BE AT FAULT.
 19 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 20 #
 21 # NOTE--2 XXX XX-XX FA1038 I/O CHANNEL CONTROL
 22 # NOTE--2 XXX XX-XX FA1039 I/O CHANNEL CONTROL
 23 # ANY EQUIPPED CHANNEL MAY BE AT FAULT
 24 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 25 # PROC 10-06 FC201 I/O CHAN 0 HIGH SUB-CHAN
 26 # PROC 10-05 FC201 I/O CHAN 0 LOW SUB-CHAN
 27 # NOTE--3 CTI 02-06 FA1213 CTI BOARD 3
 28 # NOTE--3 CTI 02-14 FA1211 CTI BOARD 5
 29 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 30 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
 31 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
 32 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
 33 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15
 34 # NOTE--3 CTI 02-10 FA1211 CTI BOARD 4
 35 # NOTE--3 DMA 02-24 FC391 DMA STATUS BOARD 2
 36 # PROC 10-22 FA1028 ERROR REG/DISPLAY BUFFER HIGH BITS
 37 # PROC 06-35 FA1021 MICRO CONTROL 6

0020212

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7403 FLCNT

CDGNTI W77D

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-001- 01 #& TBL 7403
-001- 02 #& TEST 74
-001- 03 #& SEGMENT 2
-001- 04 #& PR CDGNTI
-001- 05 #
06 # AN ERROR INVOLVING THE CONTROL FIELD OF THE IOS HAS OCCURRED.
07 # THE FAULT MAY BE IN THE IOS OR THE CHECK CIRCUIT. EITHER
08 # AN ERROR WAS INDICATED WHEN IT WAS NOT EXPECTED OR THE CHECK
09 # CIRCUIT FAILED TO INDICATE AN ERROR FOR AN ERRONEOUS CODE.
10 # THE I/O CHANNEL INVOLVED IS INDICATED BY THE DATA WORD.
11 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
0020212 12
13 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
14
0020212 -001- 15
0020212 -001- 16 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 17 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 18 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 19
-001- 20 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 21 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 22 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 23
-001- 24 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 25 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 26 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 29 #& TBL 7404
-001- 30 #& TEST 74
-001- 31 #& SEGMENT 2
-001- 32 #& PR CDGNTI
-001- 33 #
34 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
35 # MDGRAIO, IODXR11, CHCR, MDIDCH, MDSEIOS
36 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
37 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 0
38 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
0020212 39
40 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
0020212 -001- 41
-001- 42 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 43 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 44 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 45
-001- 46 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 47 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 48 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 49

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7404 FLI0000

CDGNTI

W77D

-001- 01 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 02 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 03 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 06 # TBL 7405
 -001- 07 # TEST 74
 -001- 08 # SEGMENT 2
 -001- 09 # PR CDGNTI
 -001- 10 #
 11 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 12 # MDGRAIO, IODXR11, CHCR, MDIDICH, MDSEIOS
 13 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 14 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 1
 15 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 16
 17 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9
 18 # NOTE--3 CTI 02-14 FA1211 CTI BOARD 5

0020212

0020212

-001- 19
 -001- 20 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 21 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 22 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 23

0020212

-001- 24 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 25 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 -001- 26 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
 -001- 27

0020212

-001- 28 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 29 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 30 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 119

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7406 FL10002

CDGNTI W77D

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-001- 01 ## TBL 7406
-001- 02 ## TEST 74
-001- 03 ## SEGMENT 2
-001- 04 ## PR CDGNTI
-001- 05 #
06 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
07 # MDGRAIO, IODXR11, CHCR, MDIDICH, MDSEIOS
08 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
09 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 2
10 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
11 #
0020212 12 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
0020212 13 #
-001- 14 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 15 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 16 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 17 #
-001- 18 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 19 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 20 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 21 #
-001- 22 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 23 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 24 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 27 ## TBL 7407
-001- 28 ## TEST 74
-001- 29 ## SEGMENT 2
-001- 30 ## PR CDGNTI
-001- 31 #
32 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
33 # MDGRAIO, IODXR11, CHCR, MDIDICH, MDSEIOS
34 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
35 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 3
36 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
37 #
0020212 38 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
0020212 39 # NOTE--3 CTI 02-14 FA1211 CTI BOARD 5
-001- 40 #
-001- 41 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 42 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 43 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 44 #
-001- 45 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 46 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 47 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 48 #
-001- 49 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 120

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7407 FLI0003

CDGNTI W770

-001- 01 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 02 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 05 #& TBL 7408
 -001- 06 #& TEST 74
 -001- 07 #& SEGMENT 2
 -001- 08 #& PR CDGNTI
 -001- 09 #

10 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 11 # MDGRAIO,IODXR11,CHCR,MD0IDCH,MDSEIOS
 12 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 13 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 4
 14 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.

0020212

15 #
 16 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12

0020212

-001- 17
 -001- 18 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 19 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 20 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 21

0020212

-001- 22 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 23 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 -001- 24 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
 -001- 25

0020212

-001- 26 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 27 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 28 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 31 #& TBL 7409
 -001- 32 #& TEST 74
 -001- 33 #& SEGMENT 2
 -001- 34 #& PR CDGNTI
 -001- 35 #

36 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 37 # MDGRAIO,IODXR11,CHCR,MD0IDCH,MDSEIOS
 38 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 39 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 5
 40 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.

0020212

41
 42 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
 43 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13

0020212

-001- 44
 -001- 45 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 46 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 47 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 48

0020212

-001- 49 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7409 FLI0005

CDGNTI W770

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-001- 01 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 02 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
-001- 03
-001- 04 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 05 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 06 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 09 # TBL 7410
-001- 10 # TEST 74
-001- 11 # SEGMENT 2
-001- 12 # PR CDGNTI
-001- 13 #
-001- 14 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
-001- 15 # MDGRAIO, IODXR11, CHCR, MDIDCH, MDSEIOS
-001- 16 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
-001- 17 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 6
-001- 18 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
-001- 19
-001- 20 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
-001- 21 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12
-001- 22
-001- 23 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 24 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 25 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
-001- 26
-001- 27 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 28 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 29 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
-001- 30
-001- 31 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 32 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 33 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7411 FLZ0007

CDGNTI W770

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-001- 01 # TBL 7411
-001- 02 # TEST 74
-001- 03 # SEGMENT 2
-001- 04 # PR CDGNTI
-001- 05 #
06 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
07 # MDGRAIO,IODXR11,CHCR,MDIDCH,MDSEIOS
08 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
09 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 7
10 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
11 #
0020212 12 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15
13 # NOTE--3 CTI 02-14 FA1211 CTI BOARD 5
0020212 14 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
-001- 15 #
-001- 16 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 17 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 18 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 19 #
-001- 20 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 21 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 22 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 23 #
-001- 24 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 25 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 26 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 29 # TBL 7412
-001- 30 # TEST 74
-001- 31 # SEGMENT 2
-001- 32 # PR CDGNTI
-001- 33 #
34 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
35 # MDGRAIO,IODXR11,CHCR,MDIDCH,MDSEIOS
36 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
37 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 8
38 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
39 #
0020212 40 #
0020212 -001- 41 # PROC 06-09 FA1010 GENERAL REGISTERS BITS 0 AND 8
-001- 42 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 43 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 44 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 45 #
-001- 46 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 47 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 48 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 49 #

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, I/O TESTS

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7412 FLI0008

CDGNTI

W77D

-001- 01 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 02 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 03 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 06 # TBL 7413
 -001- 07 # TEST 74
 -001- 08 # SEGMENT 2
 -001- 09 # PR CDGNTI
 -001- 10 #

11 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 12 # MDGRAIO,IODXR11,CHCR,MDOIDCH,MDSSEIOS
 13 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 14 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 9
 15 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 16 #

0020212

17 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9

0020212

-001- 18 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 20 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 21 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 22 #

0020212

-001- 23 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 24 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 -001- 25 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
 -001- 26 #

0020212

-001- 27 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 28 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 29 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 124

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7414 FL10B10

CDGNTI

W770

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-001- 01 # TBL 7414
-001- 02 # TEST 74
-001- 03 # SEGMENT 2
-001- 04 # PR CDGNTI
-001- 05 #
06 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
07 # MDGRAIO, IODXR11, CHCR, MDIDCH, MDSEIOS
08 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
09 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 10
10 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
0020212 11
12 # PROC 06-11 FA1010 GENERAL REGISTERS BITS 2 AND 10
0020212 -001- 13
-001- 14 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 15 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 16 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 17
-001- 18 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 19 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 20 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 21
-001- 22 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 23 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 24 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 27 # TBL 7415
-001- 28 # TEST 74
-001- 29 # SEGMENT 2
-001- 30 # PR CDGNTI
-001- 31 #
32 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
33 # MDGRAIO, IODXR11, CHCR, MDIDCH, MDSEIOS
34 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
35 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 11
36 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
0020212 37
38 # PROC 06-12 FA1010 GENERAL REGISTERS BITS 3 AND 11
39 # PROC 06-10 FA1010 GENERAL REGISTERS BITS 1 AND 9
0020212 -001- 40
-001- 41 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 42 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 43 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 44
-001- 45 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 46 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 47 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 48
-001- 49 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7415 FL10011

CDGNTI W770

-001- 01 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 02 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 05 #& TBL 7416
 -001- 06 #& TEST 74
 -001- 07 #& SEGMENT 2
 -001- 08 #& PR CDGNTI
 -001- 09 #

10 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 11 # MD6RAIO, IODXR11, CHCR, MD0IDCH, MDSEIOS
 12 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 13 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 12
 14 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.

0020212

0020212

0020212

0020212

15 #
 16 # PROC 06-13 FA1010 GENERAL REGISTERS BITS 4 AND 12
 -001- 17
 -001- 18 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 19 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 20 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 21
 -001- 22 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 23 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 -001- 24 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
 -001- 25
 -001- 26 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 27 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 28 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 31 #& TBL 7417
 -001- 32 #& TEST 74
 -001- 33 #& SEGMENT 2
 -001- 34 #& PR CDGNTI
 -001- 35 #

36 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 37 # MD6RAIO, IODXR11, CHCR, MD0IDCH, MDSEIOS
 38 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 39 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 13
 40 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.

0020212

0020212

0020212

41 #
 42 # PROC 06-14 FA1010 GENERAL REGISTERS BITS 5 AND 13
 -001- 43
 -001- 44 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 45 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 46 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 47
 -001- 48 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 49 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7417 FLI0D13

CGNTI W770

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-001- 01 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
-001- 02
-001- 03 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 04 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 05 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 06 #8 TBL 7418
-001- 09 #8 TEST 74
-001- 10 #8 SEGMENT 2
-001- 11 #8 PR CGNTI
-001- 12 #
-001- 13 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
-001- 14 # M06RA10,I0DXRT1,CHCR,M00IDCH,M0SEI0S
-001- 15 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
-001- 16 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 14
-001- 17 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
-001- 18
-001- 19 # PROC 06-16 FA1010 GENERAL REGISTERS BITS 6 AND 14
-001- 20
-001- 21 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 22 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 23 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
-001- 24
-001- 25 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 26 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 27 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
-001- 28
-001- 29 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 30 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 31 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

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TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CGNTI ISSUE 04 PAGE 127

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7419 FL10015

CDGNTI

W770

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-001- 01 #& TBL 7419
-001- 02 #& TEST 74
-001- 03 #& SEGMENT 2
-001- 04 #& PR CDGNTI
-001- 05 #
06 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
07 # MDGRAIO,IODXR11,CHCR,MDIDICH,MDSEIOS
08 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
09 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT 15
10 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
0020212 11
12 # PROC 06-17 FA1010 GENERAL REGISTERS BITS 7 AND 15
0020212 -001- 13
-001- 14 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 15 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 16 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 17
-001- 18 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 19 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 20 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 21
-001- 22 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 23 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 24 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 27 #& TBL 7420
-001- 28 #& TEST 74
-001- 29 #& SEGMENT 2
-001- 30 #& PR CDGNTI
-001- 31 #
32 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
33 # MDGRAIO,IODXR11,CHCR,MDIDICH,MDSEIOS
34 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
35 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT PL
36 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
0020212 37
38 # PROC 06-18 FA1010 GENERAL REGISTERS BITS PL AND PH
39 # NOTE--3 CTI 02-02 FA1212 CTI BOARD 2
40 # NOTE--3 DMA 02-08 FC384 DMA REGISTER BITS PL, PH
0020212 -001- 41
-001- 42 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 43 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 44 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 45
-001- 46 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 47 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 48 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 49

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

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23:13:53 2/05/81 ****

7420 FL100PL

CDGNTI W77D

-001- 01 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 02 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 03 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 06 # TBL 7421
 -001- 07 # TEST 74
 -001- 08 # SEGMENT 2
 -001- 09 # PR CDGNTI
 -001- 10 #

11 # FAILURE OF ONE OF THE FOLLOWING I/O OPERATIONS
 12 # MD6RA10, IODXR11, CHCR, MD0IDCH, MD5EIOS
 13 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
 14 # IF A GATING FUNCTION FAILED, THE ERROR WAS NOTED IN BIT PH
 15 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 16 #

0020212

17 # PROC 06-18 FA1010 GENERAL REGISTERS BITS PL AND PH
 18 # NOTE--3 CTI 02-02 FA1212 CTI BOARD 2
 19 # NOTE--3 DMA 02-08 FC384 DMA REGISTER BITS PL, PH
 20 # PROC 02-25 FA1032 MISCELLANEOUS CIRCUIT BOARD

0020212

-001- 21 #
 -001- 22 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 25 #

0020212

-001- 26 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 27 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 -001- 28 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
 -001- 29 #

0020212

-001- 30 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 31 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 32 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

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TROUBLE LOCATION MANUAL

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7422 FLSUBCD

CDGNTI

W770

0020212

-001- 01 #B TBL 7422
 -001- 02 #B TEST 74
 -001- 03 #B SEGMENT 2
 -001- 04 #B PR CDGNTI
 -001- 05 #
 06 # AN ERROR INVOLVING I/O SUB-CHANNEL SELECTION HAS OCCURRED.
 07 # EITHER INCORRECT SELECTION HAS TAKEN PLACE, THE CHECK
 08 # CIRCUIT HAS GIVEN AN ERONEOUS ERROR INDICATION OR THE
 09 # ERROR CIRCUIT HAS FAILED TO INDICATE AN INVALID SELECTION CODE.
 10 # THE I/O CHANNEL INVOLVED IS INDICATED IN THE DATA WORD.
 11 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 12
 13 # PROC 10-06 FC201 I/O CHAN 0 HIGH SUB-CHAN
 14 # PROC 10-05 FC201 I/O CHAN 0 LOW SUB-CHAN
 15 # NOTE--3 DMA 02-16 FC392 DMA OTHER STORE BUS CONTROL
 16 # PROC 10-22 FA1028 ERROR REG/DISPLAY BUFFER HIGH BITS
 17 # PROC 02-35 FA1016 MICRO CONTROL 1
 18 # PROC 06-35 FA1021 MICRO CONTROL 6
 19

0020212

0020212

-001- 20
 -001- 21 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 22 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 -001- 23 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 -001- 24

0020212

-001- 25 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 26 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 -001- 27 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
 -001- 28

0020212

-001- 29 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
 -001- 30 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 -001- 31 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, 10 TESTS

PR-1c931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 130

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7423 FLCHTN

CDGNTI W77D

```

-001- 01 #8 TBL 7423
-001- 02 #8 TEST 74
-001- 03 #8 SEGMENT 2
-001- 04 #8 PR CDGNTI
-001- 05 #
06 # THE I/O OPERATION "WD1CHTN" HAS FAILED.
07 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
09 #
10 # PROC 06-06 FA1034 CONSOLE AND STATUS PANEL INTERFACE
11 #
-001- 12 #
-001- 13 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 14 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 15 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
-001- 16 #
0020212 -001- 17 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 18 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 19 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 20 #
-001- 21 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 22 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 23 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 26 #8 TBL 7424
-001- 27 #8 TEST 74
-001- 28 #8 SEGMENT 2
-001- 29 #8 PR CDGNTI
-001- 30 #
31 # THE I/O OPERATION "WD2CHTN" HAS FAILED.
32 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
33 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
34 #
0020212 -001- 35 #
-001- 36 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 37 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
0020212 -001- 38 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
-001- 39 #
-001- 40 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 41 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 42 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 43 #
-001- 44 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 45 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 46 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 131

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7425 FLIDLCH

CDGNTI W770

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-001- 01 #& TBL 7425
-001- 02 #& TEST 74
-001- 03 #& SEGMENT 2
-001- 04 #& PR CDGNTI
-001- 05 #
06 # THE I/O OPERATION "MD0IDCH" HAS FAILED.
07 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
09 #
0020212 -001- 10
0020212 -001- 11 # IF CHAN'EL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 12 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 13 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 14
-001- 15 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 16 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 17 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 18
-001- 19 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 20 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 21 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

-001- 24 #& TBL 7426
-001- 25 #& TEST 74
-001- 26 #& SEGMENT 2
-001- 27 #& PR CDGNTI
-001- 28 #
29 # THE I/O FUNCTIONS "MD1CHTN", "MD2CHTM", AND "MD3CHC" SHOULD BE
30 # INHIBITED IF THE CHANNEL IS NOT IDLE. THIS HAS FAILED
31 # THE I/O CHANNEL NUMBER IS GIVEN BY THE DATA WORD.
32 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
33 #
0020212 -001- 34
0020212 -001- 35 # IF CHANNEL 0 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 36 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
-001- 37 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
0020212 -001- 38
-001- 39 # IF CHANNEL 1 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 40 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
-001- 41 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL
0020212 -001- 42
-001- 43 # IF CHANNEL 2 HAS FAILED, REPLACE THE FOLLOWING PACKS:
-001- 44 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
-001- 45 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

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TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 132

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7427 MLTI0000

CDGNTI W77D

-001- 01 #8 TBL 7427
 -001- 02 #8 TEST 74
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # THIS TROUBLE NUMBER IS NOT USED BY THE DIAGNOSTIC TEST.

-001- 09 #8 TBL 7428
 -001- 10 #8 TEST 74
 -001- 11 #8 SEGMENT 3
 -001- 12 #8 PR CDGNTI
 -001- 13 #
 14 # LOADING OR UNLOADING OF MULTIPLE IOO OR IOS REGISTERS HAS OCCURRED.
 15 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 1
 16 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 17
 18 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 19 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 20 # NOTE--1 PROC 10-07 FA1038 I/O CHAN 1 CONTROL
 21 # NOTE--1 PROC 10-08 FA1039 I/O CHAN 1 CONTROL

0020212

-001- 24 #8 TBL 7429
 -001- 25 #8 TEST 74
 -001- 26 #8 SEGMENT 3
 -001- 27 #8 PR CDGNTI
 -001- 28 #
 29 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 30 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 2
 31 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 32
 33 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 34 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 35 # NOTE--1 PROC 10-11 FA1038 I/O CHAN 2 CONTROL
 36 # NOTE--1 PROC 10-12 FA1039 I/O CHAN 2 CONTROL

0020212

TIMING COUNTER, INTERRUPT, ADDR AND DATA WATCHER, IO TESTS

PR-1c931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 133

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7430 MLTI0003

CDGNTI W77D

0020212

-001- 01 #8 TBL 7430
 -001- 02 #8 TEST 74
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 07 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 3
 08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 09 #
 10 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 11 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 14 #8 TBL 7431
 -001- 15 #8 TEST 74
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 20 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 4
 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 22 #
 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 27 #8 TBL 7432
 -001- 28 #8 TEST 74
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 33 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 5
 34 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 35 #
 36 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 37 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 134

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

F433 MLT100D6

CDGNTI W770

0020212

-001- 01 ## TBL 7433
 -001- 02 ## TEST 74
 -001- 03 ## SEGMENT 3
 -001- 04 ## PR CDGNTI
 -001- 05 #
 06 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 07 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 6
 08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 09 #
 10 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 11 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 14 ## TBL 7434
 -001- 15 ## TEST 74
 -001- 16 ## SEGMENT 3
 -001- 17 ## PR CDGNTI
 -001- 18 #
 19 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 20 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 7
 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 22 #
 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 27 ## TBL 7435
 -001- 28 ## TEST 74
 -001- 29 ## SEGMENT 3
 -001- 30 ## PR CDGNTI
 -001- 31 #
 32 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 33 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 8
 34 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 35 #
 36 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 37 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 135

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7436 MLTI0D09

CDGNTI W77D

0020212

-001- 01 #8 TBL 7436
 -001- 02 #8 TEST 74
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 07 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 9
 08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 09 #
 10 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 11 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 14 #8 TBL 7437
 -001- 15 #8 TEST 74
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 20 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 10
 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 22 #
 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 27 #8 TBL 7438
 -001- 28 #8 TEST 74
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 33 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 11
 34 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 35 #
 36 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 37 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 136

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7439 HLTIOD12

CDGNTI M770

0020212

-001- 01 #8 TBL 7439
 -001- 02 #8 TEST 74
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 07 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 12
 08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 09 #
 10 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 11 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 14 #8 TBL 7440
 -001- 15 #8 TEST 74
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 20 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 13
 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 22 #
 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 27 #8 TBL 7441
 -001- 28 #8 TEST 74
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 33 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 14
 34 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 35 #
 36 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 37 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 137

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7442 MLTI0D15

CDGNTI W77D

0020212

-001- 01 #8 TBL 7442
 -001- 02 #8 TEST 74
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #
 06 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 07 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 15
 08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 09 #
 10 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 11 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 14 #8 TBL 7443
 -001- 15 #8 TEST 74
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #
 19 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 20 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 16
 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 22 #
 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

0020212

-001- 27 #8 TBL 7444
 -001- 28 #8 TEST 74
 -001- 29 #8 SEGMENT 3
 -001- 30 #8 PR CDGNTI
 -001- 31 #
 32 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 33 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 17
 34 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.
 35 #
 36 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 37 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 138

TROUBLE LOCATION MANUAL

23:13:53 2/05/81 ****

7445 MLTI0018

CDGNTI W770

-001- 01 #8 TBL 7445
 -001- 02 #8 TEST 74
 -001- 03 #8 SEGMENT 3
 -001- 04 #8 PR CDGNTI
 -001- 05 #

06 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 07 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 18
 08 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.

0020212

09 #
 10 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 11 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL

-001- 14 #8 TBL 7446
 -001- 15 #8 TEST 74
 -001- 16 #8 SEGMENT 3
 -001- 17 #8 PR CDGNTI
 -001- 18 #

19 # LOADING OR UNLOADING OF MULTIPLE IOD OR IOS REGISTERS HAS OCCURRED.
 20 # THE FAULT IS EITHER IN I/O CHANNEL 0 OR CHANNEL 19
 21 # THE FIRST ADDRESS FIELD IS THE OFF-LINE PA REGISTER.

0020212

22 #
 23 # PROC 10-03 FA1038 I/O CHAN 0 CONTROL
 24 # PROC 10-04 FA1039 I/O CHAN 0 CONTROL
 25 CTINERS MAXSIZE 0,455
 26 CINTRUPT MAXSIZE 0,460
 27 CADMTCH MAXSIZE 0,466
 28 CDTMTC MAXSIZE 0,13
 29 CIO MAXSIZE 0,20

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 139

PATCH HISTORY

23:13:53 2/05/81 ****

LISTING OF INDIVIDUAL PATCHES

CDGNTI W770

, **/**/012328/**/**
 -002- 01 PBEGIN PROG=CDGNTI TRNO=12328 SERNOB=62419
 02 # SKIP LAST SEGMENT OF TEST 71. THIS TEST CAN NOT BE RUN IN THIS
 03 # WAY WITH THE PRESENT HARDWARE.
 04 TCEND
 -001- 05 NOTE *****

0020212

0020212

12

END

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 140

PATCH HISTORY

23:13:53 2/05/81 山山山山

VALUE	T	NAME
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DEF/REF

ATTRIBUTES AND REFERENCES

CDGNT I

W770

30101620 S .STOP

```
0000201 A %BITCNT
```

0 U %B

1-08

1-08

0000001 A XCLAS

0000001 A XMAXWRD

LIBNUM=10

1-08

'CDGNTI' T %NAME%

0 J %0

1-10

0 J %P

0000010 A %TAX
B %RENTS36-29
4-28

U J ATCHEAD

00000000000000000000000000000000

0000-0000-0000-0000

[illegible]

Abstract

http://www.elsevier.com/locate/jmb

• •

0000001

15

0000243

17

00

10

0

0164311

'# P

FA1010 GENE

RAL REGISTER
F DTS BL AN

14

ROC 06-09

RAL REGISTER

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 141

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W770
S BITS 0 AND 8'	P	T BS00008		LIBNUM=6		
ROC 06-10 FA1010 GENE RAL REGISTER S BITS 1 AND 9'	P	T BS00109		LIBNUM=6		
ROC 06-11 FA1010 GENE RAL REGISTER S BITS 2 AND 10'	P	T BS00210		LIBNUM=6		
ROC 06-12 FA1010 GENE RAL REGISTER S BITS 3 AND 11'	P	T BS00311		LIBNUM=6		
ROC 06-13 FA1010 GENE RAL REGISTER S BITS 4 AND 12'	P	T BS00412		LIBNUM=6		
ROC 06-14 FA1010 GENE RAL REGISTER S BITS 5 AND 13'	P	T BS00513		LIBNUM=6		
ROC 06-16 FA1010 GENE RAL REGISTER S BITS 6 AND 14'	P	T BS00614		LIBNUM=6		
ROC 06-17 FA1010 GENE RAL REGISTER S BITS 7 AND 15'	P	T BS00715		LIBNUM=6		
ROC 02-08 FA1024 SPEC IAL REGISTER S BITS 0 AND						

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, 10 TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 142

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
'8'	P	T BS10008		LIBNUM=6		
'# ROC 02-09 FA1024 SPEC IAL REGISTER S BITS 1 AND						
'9'	P	T BS10109		LIBNUM=6		
'# ROC 02-10 FA1024 SPEC IAL REGISTER S BITS 2 AND						
'10'	P	T BS10210		LIBNUM=6		
'# ROC 02-11 FA1024 SPEC IAL REGISTER S BITS 3 AND						
'11'	P	T BS10311		LIBNUM=6		
'# ROC 02-12 FA1024 SPEC IAL REGISTER S BITS 4 AND						
'12'	P	T BS10412		LIBNUM=6		
'# ROC 02-13 FA1024 SPEC IAL REGISTER S BITS 5 AND						
'13'	P	T BS10513		LIBNUM=6		
'# ROC 02-14 FA1024 SPEC IAL REGISTER S BITS 6 AND						
'14'	P	T BS10614		LIBNUM=6		
'# ROC 02-17 FA1024 SPEC IAL REGISTER S BITS 7 AND						
'15'	P	T BS10715		LIBNUM=6		
'# ROC 02-19 FA1030 MISC DEC. - REG ITERS BITS 16 AND 18						
'16'	P	T BS1618		LIBNUM=6		

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 143

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
'# P						
ROC 02-20						
FA1030 MISC						
. DEC. - REG						
ISTERS BITS						
17 AND 19	T	BS1719		LIBNUM=6		
17 R BTC				S=3 LIBNUM=10	24-16	
07 0016206	L	CADMTCH	1-33	40-11		
07 0017147	L	CDITMCH	1-34	59-14		
07 0015506	L	CINTRUPT	1-32	27-11		
07 0020173	L	CIO	1-35	62-14		
'# P						
ROC 06-31						
FA1025 SYST						
EM CLOCK	T	CLCK		LIBNUM=6		
07 0015257	L	CLRBIN1	16-04	15-20		
07 0015401	L	CLRBIN2	21-16	18-30		
07 0015421	L	CLRBIN3	21-39	20-39		
07 0015477	L	CLRBIN4	25-25	23-46		
0000056	A	COUNT	6-11	LIBNUM=11		
27-11, 40-11, 59-11, 62-11, 65-01, 65-03, 65-21, 66-01, 66-11, 66-24, 67-01, 67-13, 68-01, 68-21, 68-32, 69-01, 69-20, 70-01, 70-13, 70-25, 71-01, 71-13, 71-26, 72-01, 72-13, 72-25, 73-01, 73-13, 73-25, 74-01, 74-13, 74-25, 75-01, 75-23, 76-01, 76-12, 76-23, 77-01, 77-12, 77-23, 78-01, 78-12, 78-23, 79-01, 79-12, 79-23, 80-01, 80-12, 80-23, 81-01, 81-12, 81-22, 82-01, 82-13, 82-29, 82-41, 83-01, 83-16, 84-03, 84-21, 85-01, 85-14, 85-27, 86-01, 86-15, 86-28, 87-01, 87-14, 87-27, 88-01, 88-14, 88-27, 89-01, 89-14, 89-27, 90-01, 90-14, 90-27, 91-01, 91-14, 91-27, 92-01, 92-14, 92-27, 93-01, 93-14, 93-27, 94-01, 94-14, 94-27, 95-01, 95-14, 95-27, 96-01, 96-14, 96-27, 97-01, 97-14, 97-27, 98-01, 98-14, 98-27, 99-01, 99-14, 99-27, 100-01, 100-14, 100-27, 101-01, 101-14, 101-27, 102-01, 102-14, 102-27, 103-01, 103-14, 103-27, 104-01, 104-12, 104-14, 105-01, 105-21, 106-01, 106-14, 106-27, 107-01, 107-14, 107-27, 108-01, 108-14, 108-27, 109-01, 109-14, 109-27, 110-01, 110-14, 110-26, 111-01, 111-14, 111-27, 112-01, 112-14, 112-27, 113-01, 113-14, 113-27, 114-01, 114-14, 114-27, 115-01, 115-14, 115-27, 116-01, 116-15, 116-17, 117-12, 118-01, 118-29, 119-06, 120-01, 120-27, 121-05, 121-31, 122-09, 123-01, 123-29, 124-06, 125-01, 125-27, 126-05, 126-31, 127-08, 128-01, 128-27, 129-06, 130-01, 131-01, 131-26, 132-01, 132-24, 133-01, 133-09, 133-24, 134-01, 134-14, 134-27, 135-01, 135-14, 135-27, 136-01, 136-14, 136-27, 137-01, 137-14, 137-27, 138-01, 138-14, 138-27, 139-01, 139-14						
0111432	L	CPATCH	1-40			
0112562	L	CPATCH1	1-41			
0114107	L	CPATCH2	1-42			
0115073	L	CPATCH3	1-43			
0121236	L	CPATCH7	1-44			
'# P						
ROC 06-06						
FA1034 CONS						
OLE AND STAT						
US PANEL INT						
ERFACE	T	CSSPITRF		LIBNUM=6		
07 0015031	L	CTIMERS	1-31	6-14		
'# NOTE--3 C						
TI 02-02						

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 144

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
FA1212 CTI						
BOARD 2'	T	CTI2		LIBNUM=6		
'# NOTE--3 C						
TI 02-06						
FA1213 CTI						
BOARD 3'	T	CTI3		LIBNUM=6		
'# NOTE--3 C						
TI 02-10						
FA1211 CTI						
BOARD 4'	T	CTI4		LIBNUM=6		
'# NOTE--3 C						
TI 02-14						
FA1211 CTI						
BOARD 5'	T	CTI5		LIBNUM=6		
0000003	A	DATAWD	6-11	27-11, 40-11, 59-11, 62-11		
O U DFFF						
O U DFFF						
'# NOTE--3 D						
MA 02-19						
FC385 DMA						
ADD ONE CIRC						
UIT'	T	DMAADD1		LIBNUM=6		
'# NOTE--3 D						
MA 02-26						
FC387 DMA						
CONTROL CIRC						
IUT'	T	DMACTL		LIBNUM=6		
'# NOTE--3 D						
MA 02-04						
FB6 FUSE						
BOARD-STORE						
CONTROL'	T	DMAFUS4		LIBNUM=6		
'# NOTE--3 D						
MA 02-23						
FC388 DMA						
CC INTERFACE						
BOARD'	T	DMAINTF		LIBNUM=6		
'# NOTE--3 D						
MA 02-16						
FC392 DMA						
OTHER STORE						
BUS CONTROL'	T	DMAOSTB		LIBNUM=6		
'# NOTE--3 D						
MA 02-22						
FC389 DMA						
PRIORITY BOA						
RD'	T	DMAPTY		LIBNUM=6		
'# NOTE--3 D						
MA 02-21						

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 145

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
FC390 DMA		STATUS BOARD				
'1'		T DMA3S1		LIBNUM=6		
'# NOTE--3 D						
MA 02-24						
FC391 DMA		STATUS BOARD				
'2'		T DMA3S2		LIBNUM=6		
'# NOTE--3 D						
MA 02-08						
FC384 DMA		REGISTER BIT				
'S PL, PH'		T DMA3		LIBNUM=6		
'#	P					
ROC 06-27						
FA1012 DML0						
'BITS 00-07'	T	DML00007		LIBNUM=6		
'#	P					
ROC 06-25						
FA1012 DML0						
'BITS 08-15'	T	DML00815		LIBNUM=6		
'07 0015273	L	D0SEG5	16-23	16-18		
'#	P					
ROC 02-23						
FA1046 DOUB						
LE STORE REA						
D'		T DSR		LIBNUM=6		
	O	R DSD		S=2 LIBNUM=10		
	O	R DSI		S=3 LIBNUM=10		
0000111	A	DTMTCH		LIBNUM=11	58-03	30-37, 32-04, 34-16
	O	U EFFF				31-15
	O	U EFFFF				
TDATA	V	EQIOCHAN	63-01			
'#	P					
ROC 10-22						
FA1028 ERRO						
R REG/DISPLA						
T BUFFER HIG						
'N BITS'	T	ERHL1910		LIBNUM=6		
'#	P					
ROC 10-23						
FA1027 ERRO						
R REG/DISPLA						
T BUFFER LOW						
'BITS'	T	ER0900		LIBNUM=6		
	O	J ESS2	1-10			
	1	J ESS2E	1-09			
	O	J FACTORY	1-26			
07 0016101	L	FAILINT1	39-07	38-43		

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 146

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES
07 0016103	L	FAILINT2	39-15	39-04
CDGN0F	V	FAIL0FF	3-43	
07 0016067	L	FAIL1	38-40	38-24
07 0016074	L	FAIL2	39-01	38-34
0000027	A	FA0	91-01	52-27, 91-01
0000030	A	FA1	91-14	52-28, 91-14
0000041	A	FA10	94-14	52-37, 94-14
0000042	A	FA11	94-27	52-38, 94-27
0000043	A	FA12	95-01	52-39, 95-01
0000044	A	FA13	95-14	52-40, 95-14
0000045	A	FA14	95-27	52-41, 95-27
0000046	A	FA15	96-01	52-42, 96-01
0000047	A	FA16	96-14	52-43, 96-14
0000050	A	FA17	96-27	52-44, 96-27
0000051	A	FA18	97-01	52-45, 97-01
0000052	A	FA19	97-14	52-46, 97-14
0000031	A	FA2	91-27	52-29, 91-27
0000032	A	FA3	92-01	52-30, 92-01
0000033	A	FA4	92-14	52-31, 92-14
0000034	A	FA5	92-27	52-32, 92-27
0000035	A	FA6	93-01	52-33, 93-01
0000036	A	FA7	93-14	52-34, 93-14
0000037	A	FA8	93-27	52-35, 93-27
0000040	A	FA9	94-01	52-36, 94-01
	U	FBFF		
	U	FBFFF		
	U	FDFF		
	U	FDFFF		
	U	FEFF		
	U	FEFFF		
	U	FFBF		
	U	FFBFF		
	U	FFDF		
	U	FFDFF		
	U	FFEF		
	U	FFEFF		
	U	FFFB		
	U	FFFBF		
	U	FFFD		
	U	FFFDf		
	U	FFFE		
	U	FFFEF		
	U	FFFF		
	U	FFFFB		
	U	FFFFD		
	U	FFFFE		
	U	FFFFF		
	U	FFFF7		
	U	FFFF		

CDGNTI W77D

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 147

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES
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CDGNTI

W770

0	U	FFFFF		
0	U	FF00		
0	U	FF7F		
0	U	FF7FF		
0	U	FF9F		
1	J	FIELD	1-09	
0000050	A	FLAFTINT	82-29	39-21, 82-29
0000044	A	FLBIN	81-12	34-23, 81-12
0000011	A	FLBKRPT	68-21	20-34, 68-21
0000047	A	FLB4INT	82-15	39-13, 82-15
0000030	A	FLCHTM	131-26	
0000027	A	FLCHTN	131-01	
0000003	A	FLCNT	118-01	
0000042	A	FLDME	116-01	
0000001	A	FLGTII	65-03	9-06, 65-03
0000031	A	FLIDLCH	132-01	
0000032	A	FLINBT	132-24	
0000004	A	FLINCTI	66-11	15-15, 66-11
0000046	A	FLINTCNT	82-01	
0000045	A	FLINTFNT	81-22	36-26, 81-22
0000004	A	FLIOD	118-29	
0000025	A	FLIODPH	129-06	
0000024	A	FLIODPL	128-27	
0000004	A	FLIOD00	118-29	
0000005	A	FLIOD01	119-06	
0000006	A	FLIOD02	120-01	
0000007	A	FLIOD03	120-27	
0000010	A	FLIOD04	121-05	
0000011	A	FLIOD05	121-31	
0000012	A	FLIOD06	122-09	
0000013	A	FLIOD07	123-01	
0000014	A	FLIOD08	123-29	
0000015	A	FLIOD09	124-06	
0000016	A	FLIOD10	125-01	
0000017	A	FLIOD11	125-27	
0000020	A	FLIOD12	126-05	
0000021	A	FLIOD13	126-31	
0000022	A	FLIOD14	127-08	
0000023	A	FLIOD15	128-01	
0000001	A	FLIP	69-01	
0000023	A	FLIPA	75-23	
0000022	A	FLIPP	75-01	
0000001	A	FLIP00	69-01	30-44, 69-01
0000021	A	FLIP00A	74-25	31-22, 74-25
0000002	A	FLIP01	69-20	30-45, 69-20
0000003	A	FLIP02	70-01	30-46, 70-01
0000004	A	FLIP03	70-13	30-47, 70-13
0000005	A	FLIP04	70-25	30-48, 70-25
0000006	A	FLIP05	71-01	30-49, 71-01

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET

CDGNTI

ISSUE D4

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PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES
0000007	A	FLIP06	71-13	31-01, 71-13
0000010	A	FLIP07	71-26	31-02, 71-26
0000011	A	FLIP08	72-01	31-03, 72-01
0000012	A	FLIP09	72-13	31-04, 72-13
0000013	A	FLIP10	72-25	31-05, 72-25
0000014	A	FLIP11	73-01	31-06, 73-01
0000015	A	FLIP12	73-13	31-07, 73-13
0000016	A	FLIP13	73-25	31-08, 73-25
0000017	A	FLIP14	74-01	31-09, 74-01
0000020	A	FLIP15	74-13	31-10, 74-13
0000024	A	FLMASK	76-01	
0000024	A	FLMASK00	76-01	32-11, 76-01
0000025	A	FLMASK01	76-12	32-12, 76-12
0000026	A	FLMASK02	76-23	32-13, 76-23
0000027	A	FLMASK03	77-01	32-14, 77-01
0000030	A	FLMASK04	77-12	32-15, 77-12
0000031	A	FLMASK05	77-23	32-16, 77-23
0000032	A	FLMASK06	78-01	32-17, 78-01
0000033	A	FLMASK07	78-12	32-18, 78-12
0000034	A	FLMASK08	78-23	32-19, 78-23
0000035	A	FLMASK09	79-01	32-20, 79-01
0000036	A	FLMASK10	79-12	32-21, 79-12
0000037	A	FLMASK11	79-23	32-22, 79-23
0000040	A	FLMASK12	80-01	32-23, 80-01
0000041	A	FLMASK13	80-12	32-24, 80-12
0000042	A	FLMASK14	80-23	32-25, 80-23
0000043	A	FLMASK15	81-01	32-26, 81-01
0000001	A	FLMCHD	104-14	
0000001	A	FLMDR	83-01	44-31, 83-01
0000002	A	FLMIS	105-01	
0000002	A	FLMIS00	105-01	
0000003	A	FLMIS01	105-21	
0000004	A	FLMIS02	106-01	
0000005	A	FLMIS03	106-14	
0000006	A	FLMIS04	106-27	
0000007	A	FLMIS05	107-01	
0000010	A	FLMIS06	107-14	
0000011	A	FLMIS07	107-27	
0000012	A	FLMIS08	108-01	
0000013	A	FLMIS09	108-14	
0000014	A	FLMIS10	108-27	
0000015	A	FLMIS11	109-01	
0000016	A	FLMIS12	109-14	
0000017	A	FLMIS13	109-27	
0000020	A	FLMIS14	110-01	
0000021	A	FLMIS15	110-14	
0000001	A	FLMLTIO	116-17	
0000022	A	FLMSK	110-28	
0000022	A	FLMSK00	110-28	

CDGNTI

W770

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 149

23:13:53 2/05/81 ****

PATCH HISTORY

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES
0000023	A	FLMSK01	111-01	
0000024	A	FLMSK02	111-14	
0000025	A	FLMSK03	111-27	
0000026	A	FLMSK04	112-01	
0000027	A	FLMSK05	112-14	
0000030	A	FLMSK06	112-27	
0000031	A	FLMSK07	113-01	
0000032	A	FLMSK08	113-14	
0000033	A	FLMSK09	113-27	
0000034	A	FLMSK10	114-01	
0000035	A	FLMSK11	114-14	
0000036	A	FLMSK12	114-27	
0000037	A	FLMSK13	115-01	
0000040	A	FLMSK14	115-14	
0000041	A	FLMSK15	115-27	
0000002	A	FLMO	83-16	45-11, 83-16
0000002	A	FLPRETI	65-21	10-48, 65-21
0000007	A	FLREBTC	67-13	24-23, 67-13
0000026	A	FLSUBCD	130-01	
0000010	A	FLTICK	68-01	24-47, 68-01
0000003	A	FLTI125	66-01	12-07, 66-01
0000006	A	FLZPT	67-01	19-47, 67-01
0000005	A	FLZRPT	66-24	18-25, 66-24
0000003	A	FLO	84-03	48-27, 84-03
0000053	A	FLOM	97-27	56-42, 97-27
0000004	A	FL1	84-21	48-28, 84-21
0000054	A	FL1M	98-01	56-43, 98-01
0000015	A	FL10	87-27	48-37, 87-27
0000065	A	FL10M	101-01	57-03, 101-01
0000016	A	FL11	88-01	48-38, 88-01
0000066	A	FL11M	101-14	57-04, 101-14
0000017	A	FL12	88-14	48-39, 88-14
0000067	A	FL12M	101-27	57-05, 101-27
0000020	A	FL13	88-27	48-40, 88-27
0000070	A	FL13M	102-01	57-06, 102-01
0000021	A	FL14	89-01	48-41, 89-01
0000071	A	FL14M	102-14	57-07, 102-14
0000022	A	FL15	89-14	48-42, 89-14
0000072	A	FL15M	102-27	57-08, 102-27
0000023	A	FL16	89-27	48-43, 89-27
0000073	A	FL16M	103-01	57-09, 103-01
0000024	A	FL17	90-01	48-44, 90-01
0000074	A	FL17M	103-14	57-10, 103-14
0000025	A	FL18	90-14	48-45, 90-14
0000075	A	FL18M	103-27	57-11, 103-27
0000026	A	FL19	90-27	48-46, 90-27
0000076	A	FL19M	104-01	57-12, 104-01
0000005	A	FL2	85-01	48-29, 85-01
0000055	A	FL2M	98-14	56-44, 98-14

CDGNTI

W77D

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET

CDGNTI

ISSUE 04

PAGE 150

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
0000006	A	FL3	85-14	48-30, 85-14		
0000056	A	FL3M	98-27	56-45, 98-27		
0000007	A	FL4	85-27	48-31, 85-27		
0000057	A	FL4M	99-01	56-46, 99-01		
0000010	A	FL5	86-01	48-32, 86-01		
0000060	A	FL5M	99-14	56-47, 99-14		
0000011	A	FL6	86-15	48-33, 86-15		
0000061	A	FL6M	99-27	56-48, 99-27		
0000012	A	FL7	86-28	48-34, 86-28		
0000062	A	FL7M	100-01	56-49, 100-01		
0000013	A	FL8	87-01	48-35, 87-01		
0000063	A	FL8M	100-14	57-01, 100-14		
0000014	A	FL9	87-14	48-36, 87-14		
0000064	A	FL9M	100-27	57-02, 100-27		
07 0017155	L	FTRTN1	60-19			
07 0020206	L	FTRTN	64-32			
	O	U F7FF				
	O	U F7FFF				
07 0015266	L	G0SEG5	16-15	15-31		
0000306	A	IBXF	LIDNUM=10	37-46, 38-02, 38-13, 38-18, 38-28		
'ILLEGAL CON						
DITIONAL IN						
THE IF MACRO'T IFERROR1						
'DATA > 0 OR						
DATA < 0 IS						
MEANINGLESS						
, USE DATA =						
= 0' T IFERROR2						
'TWO CONSTAN						
TS ARE BEING						
COMPARED IN						
IF MACRO' T IFERROR3						
'AN ITEM WAS						
COMPARED TO						
SOMETHING O						
THER THAN A						
CONSTANT' T IFERROR4						
'DESTINATION						
OF AN = STA						
TEMENT IS A						
CONSTANT' T IFERROR5						
'ATTEMPTING						
TO SET ITEM						
= TO SOMETHI						
NG OTHER THA						
N A CONSTANT' IFERROR6						
'ITEM MAY ON						
LY USE THE =						
AND = COND						

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 151

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
ITIONAL'S	T	IFERROR7				
0000207	A	IMKT		LIBNUM=10 30-21, 31-34, 32-32, 33-36, 35-42		
0134071	A	INCPRX		LIBNUM=10 14-27		
0154071	A	INCTCX		LIBNUM=10 14-21		
CTSD	V	INITTST1	26-01			
CSTSUB	V	INSYNC	5-11	15-45, 21-08, 21-31, 25-17, 37-43		
07 0015246	L	INSYNC1	15-41	13-27		
07 0015370	L	INSYNC2	21-04	17-25		
07 0015410	L	INSYNC3	21-27	18-48		
07 0015466	L	INSYNC4	25-13	23-22		
07 0015510	D	INTLP	1-26			
07 0015510	D	INTLP	28-19	28-20		
CDGHW	X	INTRPN03	3-40	15-49, 16-11, 16-19, 21-12, 21-23, 21-35, 21-46, 25-21, 25-32, 38-38, 38-44, 39-05		
0000107	A	INTRUPT		LIBNUM=11 26-08		
0000112	A	IO		LIBNUM=11 61-02		
0016750	A	IOCCX		LIBNUM=10 38-07		
'# NOTE--2 X						
XX		XX-XX				
FA1039	I/O					
CHANNEL CON						
TROL'	T	IOD		LIBNUM=6		
'#	P					
ROC 10-04						
FA1039	I/O					
CHAN 0 CONTR						
OL'	T	IOD00		LIBNUM=6		
'# NOTE--1 P						
ROC 10-08						
FA1039	I/O					
CHAN 1 CONTR						
OL'	T	IOD01		LIBNUM=6		
'# NOTE--1 P						
ROC 10-12						
FA1039	I/O					
CHAN 2 CONTR						
OL'	T	IOD02		LIBNUM=6		
'# NOTE--2 X						
XX		XX-XX				
FA1038	I/O					
CHANNEL CON						
TROL'	T	IOS		LIBNUM=6		
'#	P					
ROC 10-05						
FC201	I/O					
CHAN 0 LOW S						
UB-CHAN'	T	IOSCA00		LIBNUM=6		
'#	P					
ROC 10-06						
FC201	I/O					

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 152

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	COGNTI	W770
CHAN 0 HIGH						
SUB=CHAN'		T IOSCB00		LIBNUM=6		
'#	P					
RDC 10-03						
FA1038 L/O						
CHAN 0 CONTR						
OL'	T IOS00			LIBNUM=6		
'# NOTE--1 P						
RDC 10-07						
FA1038 L/O						
CHAN 1 CONTR						
OL'	T IOS01			LIBNUM=6		
'# NOTE--1 P						
RDC 10-11						
FA1038 L/O						
CHAN 2 CONTR						
OL'	T IOS02			LIBNUM=6		
0000213 A ISXF				LIBNUM=10	44-13, 44-43, 48-11, 52-11, 56-26	
0000066 A IS_RXT				LIBNUM=10	28-37, 44-07, 47-48, 51-48, 56-14	
0000071 A IS_SXT				LIBNUM=10	29-43, 33-24, 36-05	
07 0016034 L LOOPSTRT			38-09	38-25		
0000000 A LPINDX			8-45	8-48, 10-38, 10-41, 11-42, 11-45, 14-39, 14-42, 18-15, 18-18, 19-37, 19-40, 20-24, 20-27, 24-13, 24-16, 24-35, 24-38, 30-34, 30-37, 31-12, 31-15, 32-01, 32-04, 34-13, 34-16, 36-16, 36-19, 44-19, 44-22, 45-01, 45-04, 48-17, 48-20, 52-17, 52-20, 56-32, 56-35		
0000620 A LPNUM			8-36	8-39, 10-29, 10-32, 11-33, 11-36		
07 0016554 D LPSTART			13-19	15-26, 28-20, 32-37, 43-18, 45-16, 46-47, 49-04, 50-46, 53-04, 55-12, 57-17		
'#	M					
ASCH 08-02						
FA1060 MAIN						
STORE CONTR						
OLLER - BITS						
0 & 8'	T MASCBS0			LIBNUM=6		
'#	M					
ASCH 08-07						
FA1060 MAIN						
STORE CONTR						
OLLER - BITS						
5 & 13'	T MASCBS5			LIBNUM=6		
'#	M					
ASCH 08-08						
FA1060 MAIN						
STORE CONTR						
OLLER - BITS						
6 & 14'	T MASCBS6			LIBNUM=6		
'#	M					
ASCH 08-23						
FC203 MAIN						
STORE CONTR						
OLLER CLOCK						

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-S0

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET COGNTI ISSUE 04 PAGE 153

23:13:53 2/05/81 ****

PATCH HISTORY

VALUE T NAME

DEF/REF ATTRIBUTES AND REFERENCES

CDGNTI

W77D

& I/O INTERF

ACE' T MASCCLK

LIBNUM=6

'# M

ASCH 08-22

FA1063 MAIN

STORE CONTR

OLLER - I/O

ORDER RECEIV

ER' T MASCMTCA

LIBNUM=6

3 R MCHB

LIBNUM=10

0000231 A MCHBXF

LIBNUM=10

0000231 A MCHBXT

LIBNUM=10

'# P

ROC 02-27

FA1037 MAIN

TENANCE CHAN

NEL CONTROL' T MCHC

LIBNUM=6

0000341 A MCHCXT

LIBNUM=10

'# P

ROC 02-26

TC202 MAIN

TENANCE CHAN

NEL DISCRETE

COMPONENTS' T MCHD

LIBNUM=6

'# P

ROC 02-28

FA1036 MAIN

TENANCE CHAN

NEL BITS 11-

19' T MCH1119

LIBNUM=6

'# P

ROC 02-35

FA1016 MICR

O CONTROL 1' T MC1

LIBNUM=6

'# P

ROC 02-34

FA1017 MICR

O CONTROL 2' T MC2

LIBNUM=6

'# P

ROC 02-33

FA1018 MICR

O CONTROL 3' T MC3

LIBNUM=6

'# P

ROC 06-32

FA1019 MICR

O CONTROL 4' T MC4

LIBNUM=6

'# P

ROC 06-35

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81

TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET

CDGNTI

ISSUE 04

PAGE 154

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES
FA1021	MICR			
O CONTROL 6	T	MC6		LIBNUM=6
#	P			
ROC 02-32				
FA1022	MICR			
O CONTROL 7	T	MC7		LIBNUM=6
#	P			
ROC 02-31				
FA1023	MICR			
O CONTROL 8	T	MC8		LIBNUM=6
O				

CDGNTI

W77D

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J K L M N O

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P Q R

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T U V W X Y Z

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0 1 2 3 4 5 6 7 8 9

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' #

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ROC 02-25

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FA1032 MISC

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ELLANEOS CI

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RCUIT BOARD' T MISC

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0000033 A MLTI0D

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0000033 A MLTI0D00

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0000034 A MLTI0D01

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0000035 A MLTI0D02

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0000036 A MLTI0D03

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0000037 A MLTI0D04

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0000040 A MLTI0D05

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0000041 A MLTI0D06

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0000042 A MLTI0D07

```

```

0000043 A MLTI0D08

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0000044 A MLTI0D09

```

```

0000045 A MLTI0D10

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LIBNUM=10

LIBNUM=6

133-01

133-01

133-09

133-24

134-01

134-14

134-27

135-01

135-14

135-27

136-01

136-14

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 155

23:13:53 2/05/81 ****

PATCH HISTORY

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
0000046	A	MLTIOD11	136-27			
0000047	A	MLTIOD12	137-01			
0000050	A	MLTIOD13	137-14			
0000051	A	MLTIOD14	137-27			
0000052	A	MLTIOD15	138-01			
0000053	A	MLTIOD16	138-14			
0000054	A	MLTIOD17	138-27			
0000055	A	MLTIOD18	139-01			
0000056	A	MLTIOD19	139-14			
0000215	A	MSXT		LIBNUM=10 64-24		
07 0016223	D	MSKO	43-17	43-18		
07 0016554	D	MSK1	55-11	55-12		
0000311	A	MSSTART		LIBNUM=10 38-01		
*# P						
ROC 02-21						
FA1029 MAIN						
STORE CONTR						
OL 0'		T MSTCONTO		LIBNUM=6		
*# P						
ROC 02-22						
FA1029 MAIN						
STORE CONTR						
OL 1'		T MSTCONT1		LIBNUM=6		
CDGNN	V	NABT	3-33			
CDGNN	V	NADD_OFF	3-24	8-33, 10-26, 11-30, 60-21, 64-34		
CDGNN	V	NADNIC	3-25			
CDGNN	V	NBEGIN	3-30	13-18, 28-19, 43-17, 46-46, 50-45, 55-11		
CDGNN	V	NBEN	3-41	6-17, 27-14, 40-14, 59-17, 62-17		
CDGNN	V	NCLRMS	3-35			
CDGNN	V	NCOMPARE	3-28	8-48, 10-41, 11-45, 14-42, 18-18, 19-40, 20-27, 24-16, 24-38, 30-37, 31-15, 32-04, 34-16, 36-19, 44-22, 45-04, 48-20, 52-20, 56-35		
CDGNN	V	NDISABA	3-09			
CDGNN	V	NDISABB	3-10			
CDGNN	V	NEXECUTE	3-27			
CDGNN	V	NFAILTST	3-18	9-05, 10-47, 12-04, 15-14, 18-24, 19-46, 20-33, 24-22, 24-46, 30-43, 31-21, 32-10, 34-22, 36-25, 39-12, 39-20, 44-30, 45-10, 48-26, 52-26, 56-41		
CDGNN	V	NFLBITS	3-39			
CDGNN	V	NFRZ	3-29	36-09		
CDGNN	V	NLDNIR	3-26			
CDGNN	V	NLP_END	3-31	15-25, 32-36, 45-15, 49-03, 53-03, 57-16		
CDGNN	V	NNASK	3-20			
CDGNN	V	NNICRO	3-04			
CDGNN	V	NNOSCD	3-36			
07 0016423	D	NOMCH	50-45	50-46		

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 156

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
07 0016275	D	NOMTH	46-46	46-47		
0000360	A	NOPKF		LIBNUM=10		
CDGNM	V	NPASSTST	3-21	25-03, 34-34, 39-26, 57-21		
CDGNM	V	NPROS	3-16	8-25, 10-22, 11-26, 13-22, 17-17, 18-40, 24-04, 37-10, 60-28, 64-41		
CDGNM	V	NRDMICRO	3-34	36-14		
CDGNM	V	NRESCLK	3-14			
CDGNM	V	NRETRN	3-05	8-43, 10-36, 11-40, 14-37, 16-13, 19-35, 20-22, 24-33, 44-17, 44-47, 48-15, 52-15, 56-30,		
CDGNM	V	NRTNBLM	3-47	8-29, 37-06		
CDGNM	V	NSEND	3-22	13-42, 17-37, 19-12, 20-05, 23-34, 28-42, 29-05, 29-48, 31-27, 33-17, 33-41, 35-23, 35-47,		
CDGNM	V	NSKIP	3-32	37-24, 42-24, 43-28, 47-13, 51-13, 54-25, 55-25, 64-17		
CDGNM	V	NSTOP	3-08	8-21, 10-18, 11-22, 12-09, 37-17		
CDGNM	V	NSTPCLK	3-12			
CDGNM	V	NSTRT	3-07			
CDGNM	V	NSTRTCLK	3-11			
CDGNM	V	NTESTSEG	3-17	8-08, 10-08, 11-08, 13-03, 17-08, 23-08, 28-08, 33-08, 35-08, 42-08, 46-08, 50-08, 54-08,		
CDGNM	V	NTGCLK	3-13	60-08, 64-08		
CDGNM	V	NTMTEST	3-37	8-38, 10-31, 11-35		
CDGNM	V	NTTY	3-19			
0000000	A	NUM	5-37	13-19, 15-27, 26-08, 28-20, 32-38, 39-28, 43-18, 45-17, 46-47, 49-05, 50-46, 53-05, 55-12,		
				57-18, 58-03, 61-02		
TDATA	V	NUMSTCHN	63-02			
CDGNM	V	NWDTST	3-48			
CDGNM	V	NZERO_ER	3-15			
CDGNM	V	NZERPT	3-38	18-03		
CDGNM	V	NZRETRN	3-06	24-09, 30-32, 31-44, 34-11		
CDGNM	V	NZSEND	3-23			
CDGNM	V	ODGOFSUB	59-20	59-19, 62-19, 62-20		
	V	ODTMTCH	59-19	59-18		
!# THE FIR ST ADDRESS F IELD IS THE OFF-LINE PA REGISTER.						
	T	OFFPA		LIBNUM=6		
	V	OIO	62-19	62-18		

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TIMING: COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 157

23:13:53 2/05/81 ****

PATCH HISTORY

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W770
<pre> + jklmnopqr n)28--stuvw xyz+L{3#012 3456789+/,;]} -(IBCLEF6H) PQR 3JKLMO LLLWLYZ 0123456789 </pre>						
0000253	T	OPTR	36-29			
	V	OTIMERS	6-19	6-18		
16	R	OVLOF		S=0 LIBNUM=10		
0000000	A	PARITY	13-39	17-34, 19-09, 20-02, 23-31, 28-39, 29-02, 29-45, 31-24, 33-14, 33-38, 35-20, 35-44, 37-21, 42-21, 43-25, 47-10, 51-10, 54-22, 55-22, 64-14		
07 0016105	L	PASSINT	39-23	38-37		
CDGNOF	V	PASSOFF	3-42			
'CDGNTI'	T	PNAME				
'#	P					
ROC 02-24						
FA1033	PROG					
RAM TIMER/TI						
MING COUNTER	T	PTTC		LIBNUM=6		
14	P	RAO		LIBNUM=3	15-48, 16-10, 16-18, 21-11, 21-22, 21-34, 21-45, 25-20, 25-31, 38-37, 38-43, 39-04	
'DGNTI'	T	RTNAME				
0000225	A	RTNML		LIBNUM=10		
0	R	RO		38-17		
0000123	A	ROXF		LIBNUM=3	15-43, 15-48, 16-10, 16-18, 21-06, 21-11, 21-22, 21-29, 21-34, 21-45, 25-15, 25-20, 25-31, 37-40, 38-08, 38-37, 38-43, 39-04	
0000123	A	ROXT		LIBNUM=10		
				29-43		
				LIBNUM=10	29-06, 29-08, 29-10, 29-12, 29-14, 29-16, 29-18, 29-20, 29-22, 29-24, 29-26, 29-28, 29-30, 29-32, 29-34, 29-36	
1	R	R1		LIBNUM=3		
0000125	A	R1XF		LIBNUM=10	37-32	
0000125	A	R1XT		LIBNUM=10	37-25	
3	R	R3		LIBNUM=3	38-22, 38-25, 38-32	
0000225	A	SARXT		LIBNUM=10	43-36, 46-29, 51-39, 54-38	
0023712	A	SBRX		LIBNUM=10	28-31, 43-05, 46-35, 50-35, 54-44	
0025471	A	SBTCX		LIBNUM=10	13-37, 17-32, 19-06, 23-29	
0015471	A	SBRX		LIBNUM=10	43-23, 44-37, 48-05, 52-05, 56-20	
CDGNOF	V	SEGNT1	61-01	64-35		
CDGNOF	V	SEG1	58-02	60-22		
0001025	A	SERNO_062419	140-02			
0000002	A	SKIOER	117-12			
CDGNM	V	SLOMCHBF	3-44			
CDGNM	V	SLOMIRLF	3-45			
CDGNM	V	SMCHF	3-46	37-48, 38-04, 38-15, 38-20, 38-30		
0000216	A	SS_RXT		LIBNUM=10	28-49, 35-30, 37-32	
0000213	A	SS_SXT		LIBNUM=10	33-48, 42-31	

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 158

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE	T	NAME	DEF/REF	ATTRIBUTES AND REFERENCES	CDGNTI	W77D
0000027	A	STOPCLK		LIBNUM=10 37-45		
0000000	A	SUCCESS	8-45	8-48, 10-38, 10-41, 11-42, 11-45, 14-39, 14-42, 18-15, 18-18, 19-37, 19-40, 20-24, 20-27, 24-13, 24-16, 24-35, 24-38, 30-34, 30-37, 31-12, 31-15, 32-01, 32-04, 34-13, 34-16, 36-16, 36-19, 44-19, 44-22, 45-01, 45-04, 48-17, 48-20, 52-17, 52-20, 56-32, 56-35		
0000000	A	SV REG				
07 0015116	L	TBLRTN1	13-32	15-48		
07 0015240	L	TBLRTN2	15-22	16-10		
07 0015300	L	TBLRTN3	17-27	21-11		
07 0015323	L	TBLRTN4	18-32	21-22		
07 0015327	L	TBLRTN5	19-01	21-34		
07 0015430	L	TBLRTN6	22-03	21-45		
07 0015434	L	TBLRTN7	23-24	25-20		
07 0015446	L	TBLRTN8	24-01	25-31		
07 0016015	L	TESTINTSEQ	37-39			
0000112	A	TESTNO	5-37	26-08, 39-28, 58-03, 61-02, 65-01, 68-32, 82-41, 104-12, 116-15		
0116774	L	TFAPCH2	2-01			
0000223	A	TI2F		LIBNUM=10 14-33, 18-09, 19-31, 20-18, 24-29		
07 0015111	D	TIINCLP	13-18	13-19		
0000106	A	TIMERS		LIBNUM=11 5-37		
CDGN0F	V	TIIMPRE	5-03	10-27		
CDGN0F	V	TIIMRGT	5-02	8-34		
0146074	A	TINTX		LIBNUM=10 30-28, 31-40, 34-05		
CDGN0F	V	TI125	5-04	11-31		
0000106	A	TIIMFRST	5-01	5-37, 65-01		
0000047	A	TOGCLK		LIBNUM=10 38-12, 38-27		
0600000	L	TPATCH	2-03			
0001025	A	TR_012328	140-02			
0000253	A	TR_12328	36-29			
07 0016001	L	TRORG	36-29			
07 0016001	L	TRORG				
T	XTSEG					
V	XGOFSUB	59-20	59-19, 62-19, 62-20			
V	XTMTCH	59-19	59-18			
V	XIO	62-19	62-18			
V	XTIMERS	6-19	6-18			
0025712	A	ZBRX		LIBNUM=10 33-30, 35-36, 42-37, 46-23, 50-23		
0015472	A	ZBRX		LIBNUM=10 43-48, 47-08, 51-08, 55-20		
0146072	A	ZBRX		LIBNUM=10 28-25		
0134350	A	ZPTX		LIBNUM=10 19-25		
0	U	0F9F				
0	U	000F				
0	U	001F				
0	U	003F				
0	U	007F				
0	U	009F				
0	U	019F				
0	U	039F				
0	U	079F				
0	U	1F9F				
1	J	3ACC	1-09			

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 159

PATCH HISTORY

23:13:53 2/05/81 ****

VALUE T NAME DEF/REF ATTRIBUTES AND REFERENCES

CDGNTI W77D

O U 3F9F
O U 7FFF
O U 7FFF
O U 7FFF

NO FLAG(S) FOUND IN THIS ASSEMBLY

TIMING COUNTER, INTERRUPT, ADDR AND DATA MATCHER, IO TESTS

PR-1C931-50

23:13:53 2/05/81 TRADE SECRET - SEE TRADE SECRET RESTRICTIVE NOTICE ON COVER SHEET CDGNTI ISSUE 04 PAGE 160